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Contents

Federal Register

Vol. 88, No. 60

Wednesday, March 29, 2023

Reader Aids

Consult the Reader Aids section at the end of this issue for phone numbers, online resources, finding aids, and notice of recently enacted public laws.

To subscribe to the Federal Register Table of Contents electronic mailing list, go to https://public.govdelivery.com/accounts/USGPOOFR/subscriber/new, enter your e-mail address, then follow the instructions to join, leave, or manage your subscription.

CFR PARTS AFFECTED IN THIS ISSUE

A cumulative list of the parts affected this month can be found in the Reader Aids section at the end of this issue.

Federal Register
Vol. 88, No. 60
Wednesday, March 29, 2023

Presidential Documents

Title 3—

The President

Proclamation 10535 of March 24, 2023

Greek Independence Day: A National Day of Celebration of Greek and American Democracy, 2023

By the President of the United States of America

A Proclamation

Today, we honor the heroism of Greek revolutionaries who fought for their independence more than two centuries ago and celebrate the sacred idea that has always bound our great nations together: that ''we the people'' hold the power to shape our own destinies.

The story of our shared values and common purpose reaches back to America's founding, when ancient Athenian democracy helped inspire the Framers of our democracy to forge a new system of self-government. Just a few decades later, in 1821, when the courageous women and men of Greece rose up to declare their own independence from the Ottoman Empire, young patriots from the newly formed United States crossed the Atlantic to support the Greek fight for freedom. During World War II, Greeks and Americans joined together against the forces of fascism, understanding in their cores that democracy is worth the sacrifice.

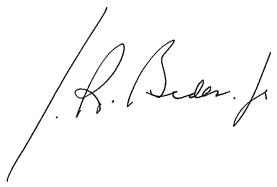
Today, the alliance between Greece and the United States has never been stronger. Together, we are deepening our cooperation on climate and energy, trade and investment, pandemic response, disaster relief, and so much more to shape a healthier, more prosperous, and more just world. In the face of Russia's brutal aggression against Ukraine, Greece has once more demonstrated its moral courage and its values—condemning Russia's aggression and welcoming Ukrainian refugees. Every generation has to defeat democracy's mortal foes, and together, we will continue to show the world that the darkness that drives autocracy can never extinguish the flames of liberty.

As Greece and the United States meet the future together, the ties of family and the contributions of Greek Americans continue to strengthen our partnership at every turn. Greek Americans are leaders in every industry and every community, helping build an economy that works for everyone and working toward greater social justice for all. I have been blessed with lifelong friendships and political mentors in the Greek American community, and I have seen firsthand how Greek culture and values enrich our American fabric.

This Greek Independence Day, as we mark 202 years of friendship between the modern Hellenic Republic and the United States, let us recommit to defending democracy together—standing up for the rights, equality, and dignity of all people.

NOW, THEREFORE, I, JOSEPH R. BIDEN JR., President of the United States of America, by virtue of the authority vested in me by the Constitution and the laws of the United States, do hereby proclaim March 25, 2023, as Greek Independence Day: A National Day of Celebration of Greek and American Democracy. I call upon the people of the United States to observe this day with appropriate ceremonies and activities.

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



[FR Doc. 2023–06621
Filed 3–28–23; 8:45 am]
Billing code 3395–F3–P

Rules and Regulations

Federal Register
Vol. 88, No. 60
Wednesday, March 29, 2023

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.

NUCLEAR REGULATORY COMMISSION

10 CFR Parts 20, 21, 26, 50, 70, 72, 73,74 and 76

[NRC–2011–0014; NRC–2011–0015; NRC–2011–0017; NRC–2011–0018]

RIN 3150–AI49

Enhanced Weapons, Firearms Background Checks, and Security Event Notifications; Correction

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule and guidance; correction.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is correcting a final rule that was published in the **Federal Register** on March 14, 2023, regarding its regulations to implement its authority under Section 161A of the Atomic Energy Act of 1954, as amended. This action is necessary to correct an amendatory instruction, update the section-by-section analysis, and correct a grammatical error.

DATES: The correction is effective on April 1, 2023.

ADDRESSES: Please refer to Docket IDs NRC–2011–0014, NRC–2011–0015, NRC–2011–0017, and NRC–2011–0018 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 IDs NRC–2011–0014, NRC–2011–0015, NRC–2011–0017, or NRC–2011–0018. Address questions about NRC dockets to Dawn Forder; telephone: 301–415–3407; email: *Dawn.Forder@nrc.gov.* For technical questions, contact the individuals listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.
- *NRC's Agencywide Documents Access and Management System (ADAMS):* You may obtain publicly available documents online in the ADAMS Public Documents collection at *https://www.nrc.gov/reading-rm/adams.html.* To begin the search, select ''ADAMS Public Documents'' and then 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.*
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FOR FURTHER INFORMATION CONTACT: Stewart Schneider, Office of Nuclear Material Safety and Safeguards, telephone: 301–415–4123; email: *Stewart.Scheider@nrc.gov;* or Philip Brochman, Office of Nuclear Security and Incident Response, telephone: 301–287–3691; email: *Phil.Brochman@nrc.gov.* Both are staff of the U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001.

SUPPLEMENTARY INFORMATION: The NRC is announcing the following corrected language in FR Doc. 2023–03944, published at 88 FR 15864 on March 14, 2023.

■ 1. On page 15875, third column, section-by-section analysis for ''Appendix B to Part 73—General Criteria for Security Personnel'' is corrected to read ''Appendix B is revised to clarify employment suitability for armed security personnel.''

§ 73.15 [Corrected]

■ 2. On page 15882, third column, § 73.15(c)(1)(ii), ''Gray (Gy)'' is corrected to read ''gray (Gy).''

Appendix B to Part 73 [Corrected]

■ 3. On page 15898, first column, amendatory instruction 41 for appendix B to part 73 is corrected to read:

■ 41. In appendix B to part 73, revise section I.A to read as follows:

Dated: March 23, 2023.

For the Nuclear Regulatory Commission.

Cindy K. Bladey,

Chief, Regulatory Analysis and Rulemaking Support Branch, Division of Rulemaking, Environmental, and Financial Support, Office of Nuclear Material Safety and Safeguards.

[FR Doc. 2023–06377 Filed 3–28–23; 8:45 am]

BILLING CODE 7590–01–P

FEDERAL RESERVE SYSTEM

12 CFR Part 201

[Docket No. R–1803; RIN 7100–AG56]

Regulation A: Extensions of Credit by Federal Reserve Banks

AGENCY: Board of Governors of the Federal Reserve System.

ACTION: Final rule.

SUMMARY: The Board of Governors of the Federal Reserve System (''Board'') has adopted final amendments to its Regulation A to reflect the Board's approval of an increase in the rate for primary credit at each Federal Reserve Bank. The secondary credit rate at each Reserve Bank automatically increased by formula as a result of the Board's primary credit rate action.

DATES:

Effective date: This rule (amendments to part 201 (Regulation A)) is effective March 29, 2023.

Applicability date: The rate changes for primary and secondary credit were applicable on March 23, 2023.

FOR FURTHER INFORMATION CONTACT: Sophia H. Allison, Senior Special Counsel (202–452–3565), Legal Division, or Nicole Trachman, Financial Institution & Policy Analyst (202–973–5055), Division of Monetary Affairs; for users of telephone systems via text telephone (TTY) or any TTY-based Telecommunications Relay Services, please call 711 from any telephone, anywhere in the United States; Board of Governors of the Federal Reserve System, 20th and C Streets NW, Washington, DC 20551.

SUPPLEMENTARY INFORMATION: The Federal Reserve Banks make primary and secondary credit available to depository institutions as a backup source of funding on a short-term basis, usually overnight. The primary and secondary credit rates are the interest rates that the twelve Federal Reserve Banks charge for extensions of credit

under these programs. In accordance with the Federal Reserve Act, the primary and secondary credit rates are established by the boards of directors of the Federal Reserve Banks, subject to review and determination of the Board.

On March 22, 2023, the Board voted to approve a 0.25 percentage point increase in the primary credit rate, thereby increasing the primary credit rate from 4.75 percent to 5 percent. In addition, the Board had previously approved the renewal of the secondary credit rate formula, the primary credit rate plus 50 basis points. Under the formula, the secondary credit rate increased by 0.25 percentage points as a result of the Board's primary credit rate action, thereby increasing the secondary credit rate from 5.25 percent to 5.50 percent. The amendments to Regulation A reflect these rate changes.

The 0.25 percentage point increase in the primary credit rate was associated with a 0.25 percentage point increase in the target range for the federal funds rate (from a target range of 4½ percent to 4¾ percent to a target range of 4¾ percent to 5 percent) announced by the Federal Open Market Committee on March 22, 2023, as described in the Board's amendment of its Regulation D published elsewhere in today's **Federal Register**.

Administrative Procedure Act

In general, the Administrative Procedure Act (''APA'') [1] imposes three principal requirements when an agency promulgates legislative rules (rules made pursuant to Congressionally-delegated authority): (1) publication with adequate notice of a proposed rule; (2) followed by a meaningful opportunity for the public to comment on the rule's content; and (3) publication of the final rule not less than 30 days before its effective date. The APA provides that notice and comment procedures do not apply if the agency for good cause finds them to be ''unnecessary, impracticable, or contrary to the public interest.'' [2] Section 553(d) of the APA also provides that publication at least 30 days prior to a rule's effective date is not required for (1) a substantive rule which grants or recognizes an exemption or relieves a restriction; (2) interpretive rules and statements of policy; or (3) a rule for which the agency finds good cause for shortened notice and publishes its reasoning with the rule.[3] The APA further provides that the notice, public comment, and delayed effective date requirements of 5 U.S.C. 553 do not apply ''to the extent that there is involved . . . a matter relating to agency management or personnel or to public property, loans, grants, benefits, or contracts.'' [4]

Regulation A establishes the interest rates that the twelve Reserve Banks charge for extensions of primary credit and secondary credit. The Board has determined that the notice, public comment, and delayed effective date requirements of the APA do not apply to these final amendments to Regulation A. The amendments involve a matter relating to loans and are therefore exempt under the terms of the APA. Furthermore, because delay would undermine the Board's action in responding to economic data and conditions, the Board has determined that ''good cause'' exists within the meaning of the APA to dispense with the notice, public comment, and delayed effective date procedures of the APA with respect to the final amendments to Regulation A.

Regulatory Flexibility Analysis

The Regulatory Flexibility Act (''RFA'') does not apply to a rulemaking where a general notice of proposed rulemaking is not required.[5] As noted previously, a general notice of proposed rulemaking is not required if the final rule involves a matter relating to loans. Furthermore, the Board has determined that it is unnecessary and contrary to the public interest to publish a general notice of proposed rulemaking for this final rule. Accordingly, the RFA's requirements relating to an initial and final regulatory flexibility analysis do not apply.

Paperwork Reduction Act

In accordance with the Paperwork Reduction Act (''PRA'') of 1995,[6] the Board reviewed the final rule under the authority delegated to the Board by the Office of Management and Budget. The final rule contains no requirements subject to the PRA.

List of Subjects in 12 CFR Part 201

Banks, banking, Federal Reserve System, Reporting and recordkeeping.

Authority and Issuance

For the reasons set forth in the preamble, the Board is amending 12 CFR chapter II as follows:

PART 201—EXTENSIONS OF CREDIT BY FEDERAL RESERVE BANKS (REGULATION A)

■ 1. The authority citation for part 201 continues to read as follows:

Authority: 12 U.S.C. 248(i)–(j), 343 *et seq.,* 347a, 347b, 347c, 348 *et seq.,* 357, 374, 374a, and 461.

■ 2. In § 201.51, paragraphs (a) and (b) are revised to read as follows:

§ 201.51 Interest rates applicable to credit extended by a Federal Reserve Bank.[3]

(a) *Primary credit.* The interest rate at each Federal Reserve Bank for primary credit provided to depository institutions under § 201.4(a) is 5 percent.

(b) *Secondary credit.* The interest rate at each Federal Reserve Bank for secondary credit provided to depository institutions under § 201.4(b) is 5.50 percent.

* * * * *

[3] The primary, secondary, and seasonal credit rates described in this section apply to both advances and discounts made under the primary, secondary, and seasonal credit programs, respectively.

By order of the Board of Governors of the Federal Reserve System.

Ann E. Misback,

Secretary of the Board.

[FR Doc. 2023–06441 Filed 3–28–23; 8:45 am]

BILLING CODE 6210–02–P

FEDERAL RESERVE SYSTEM

12 CFR Part 204

[Docket No. R–1804; RIN 7100–AG57]

Regulation D: Reserve Requirements of Depository Institutions

AGENCY: Board of Governors of the Federal Reserve System.

ACTION: Final rule.

SUMMARY: The Board of Governors of the Federal Reserve System (''Board'') has adopted final amendments to its Regulation D to revise the rate of interest paid on balances (''IORB'') maintained at Federal Reserve Banks by or on behalf of eligible institutions. The final amendments specify that IORB is 4.9 percent, a 0.25 percentage point increase from its prior level. The amendment is intended to enhance the role of IORB in maintaining the federal funds rate in the target range established by the Federal Open Market Committee (''FOMC'' or ''Committee'').

DATES:

Effective date: This rule (amendments to part 204 (Regulation D)) is effective March 29, 2023.

[1] 5 U.S.C. 551 *et seq.*

[2] 5 U.S.C. 553(b)(3)(A).

[3] 5 U.S.C. 553(d).

[4] 5 U.S.C. 553(a)(2).

[5] 5 U.S.C. 603, 604.

[6] 44 U.S.C. 3506; *see* 5 CFR part 1320, appendix A.1.

Applicability date: The IORB rate change was applicable on March 23, 2023.

FOR FURTHER INFORMATION CONTACT: Sophia H. Allison, Senior Special Counsel (202–452–3565), Legal Division, or Nicole Trachman, Financial Institution & Policy Analyst (202–973–5055), Division of Monetary Affairs; for users of telephone systems via text telephone (TTY) or any TTY-based Telecommunications Relay Services, please call 711 from any telephone, anywhere in the United States; Board of Governors of the Federal Reserve System, 20th and C Streets NW, Washington, DC 20551.

SUPPLEMENTARY INFORMATION:

I. Statutory and Regulatory Background

For monetary policy purposes, section 19 of the Federal Reserve Act (''Act'') imposes reserve requirements on certain types of deposits and other liabilities of depository institutions.[1] Regulation D, which implements section 19 of the Act, requires that a depository institution meet reserve requirements by holding cash in its vault, or if vault cash is insufficient, by maintaining a balance in an account at a Federal Reserve Bank (''Reserve Bank'').[2] Section 19 also provides that balances maintained by or on behalf of certain institutions in an account at a Reserve Bank may receive earnings to be paid by the Reserve Bank at least once each quarter, at a rate or rates not to exceed the general level of short-term interest rates.[3] Institutions that are eligible to receive earnings on their balances held at Reserve Banks (''eligible institutions'') include depository institutions and certain other institutions.[4] Section 19 also provides that the Board may prescribe regulations concerning the payment of earnings on balances at a Reserve Bank.[5] Prior to these amendments, Regulation D established IORB at 4.65 percent.[6]

II. Amendment to IORB

The Board is amending § 204.10(b)(1) of Regulation D to establish IORB at 4.9 percent. The amendment represents a 0.25 percentage point increase in IORB. This decision was announced on March 22, 2023, with an effective date of March 23, 2023, in the Federal Reserve Implementation Note that accompanied the FOMC's statement on March 22, 2023. The FOMC statement stated that the Committee decided to raise the target range for the federal funds rate to 4¾ to 5 percent.

The Federal Reserve Implementation Note stated:

> The Board of Governors of the Federal Reserve System voted unanimously to raise the interest rate paid on reserve balances to 4.9 percent, effective March 23, 2023.

As a result, the Board is amending § 204.10(b)(1) of Regulation D to establish IORB at 4.9 percent.

III. Administrative Procedure Act

In general, the Administrative Procedure Act (''APA'')[7] imposes three principal requirements when an agency promulgates legislative rules (rules made pursuant to Congressionally-delegated authority): (1) publication with adequate notice of a proposed rule; (2) followed by a meaningful opportunity for the public to comment on the rule's content; and (3) publication of the final rule not less than 30 days before its effective date. The APA provides that notice and comment procedures do not apply if the agency for good cause finds them to be ''unnecessary, impracticable, or contrary to the public interest.''[8] Section 553(d) of the APA also provides that publication at least 30 days prior to a rule's effective date is not required for (1) a substantive rule which grants or recognizes an exemption or relieves a restriction; (2) interpretive rules and statements of policy; or (3) a rule for which the agency finds good cause for shortened notice and publishes its reasoning with the rule.[9]

The Board has determined that good cause exists for finding that the notice, public comment, and delayed effective date provisions of the APA are unnecessary, impracticable, or contrary to the public interest with respect to these final amendments to Regulation D. The rate change for IORB that is reflected in the final amendment to Regulation D was made with a view towards accommodating commerce and business and with regard to their bearing upon the general credit situation of the country. Notice and public comment would prevent the Board's action from being effective as promptly as necessary in the public interest and would not otherwise serve any useful purpose. Notice, public comment, and a delayed effective date would create uncertainty about the finality and effectiveness of the Board's action and undermine the effectiveness of that action. Accordingly, the Board has determined that good cause exists to dispense with the notice, public comment, and delayed effective date procedures of the APA with respect to this final amendment to Regulation D.

IV. Regulatory Flexibility Analysis

The Regulatory Flexibility Act (''RFA'') does not apply to a rulemaking where a general notice of proposed rulemaking is not required.[10] As noted previously, the Board has determined that it is unnecessary and contrary to the public interest to publish a general notice of proposed rulemaking for this final rule. Accordingly, the RFA's requirements relating to an initial and final regulatory flexibility analysis do not apply.

V. Paperwork Reduction Act

In accordance with the Paperwork Reduction Act (''PRA'') of 1995,[11] the Board reviewed the final rule under the authority delegated to the Board by the Office of Management and Budget. The final rule contains no requirements subject to the PRA.

List of Subjects in 12 CFR Part 204

Banks, Banking, Reporting and recordkeeping requirements.

Authority and Issuance

For the reasons set forth in the preamble, the Board amends

12 CFR part 204 as follows:

PART 204—RESERVE REQUIREMENTS OF DEPOSITORY INSTITUTIONS (REGULATION D)

■ 1. The authority citation for part 204 continues to read as follows:

Authority: 12 U.S.C. 248(a), 248(c), 461, 601, 611, and 3105.

■ 2. Section 204.10 is amended by revising paragraph (b)(1) to read as follows:

§ 204.10 Payment of interest on balances.

* * * * *

(b) * * *

(1) For balances maintained in an eligible institution's master account, interest is the amount equal to the interest on reserve balances rate (''IORB rate'') on a day multiplied by the total balances maintained on that day. The IORB rate is 4.9 percent.

* * * * *

[1] 12 U.S.C. 461(b). In March 2020, the Board set all reserve requirement ratios to zero percent. See Interim Final Rule, 85 FR 16525 (Mar. 24, 2020); Final Rule, 86 FR 8853 (Feb. 10, 2021).

[2] 12 CFR 204.5(a)(1).

[3] 12 U.S.C. 461(b)(1)(A) and (b)(12)(A).

[4] See 12 U.S.C. 461(b)(1)(A) & (b)(12)(C); *see* also 12 CFR 204.2(y).

[5] See 12 U.S.C. 461(b)(12)(B).

[6] See 12 CFR 204.10(b)(1).

[7] 5 U.S.C. 551 *et seq.*

[8] 5 U.S.C. 553(b)(3)(A).

[9] 5 U.S.C. 553(d).

[10] 5 U.S.C. 603, 604.

[11] 44 U.S.C. 3506; *see* 5 CFR part 1320, appendix A.1.

By order of the Board of Governors of the Federal Reserve System.

Ann E. Misback,

Secretary of the Board.

[FR Doc. 2023–06446 Filed 3–28–23; 8:45 am]

BILLING CODE 6210–01–P

CONSUMER FINANCIAL PROTECTION BUREAU

12 CFR Part 1081

[Docket No. CFPB–2022–0009]

RIN 3170–AB08

Rules of Practice for Adjudication Proceedings

AGENCY: Consumer Financial Protection Bureau.

ACTION: Final rule; consideration of comments.

SUMMARY: The Rules of Practice for Adjudication Proceedings (Rules of Practice) govern adjudication proceedings conducted by the Consumer Financial Protection Bureau (Bureau). The Bureau issued a procedural rule to update the Rules of Practice (Updated Rules of Practice). The Updated Rules of Practice expanded the opportunities for parties in adjudication proceedings to conduct depositions. They also made amendments concerning timing and deadlines, the content of answers, the scheduling conference, bifurcation of proceedings, the process for deciding dispositive motions, and requirements for issue exhaustion, as well as other technical changes. The Bureau sought to provide the parties with earlier access to relevant information and also foster greater procedural flexibility, which the Bureau expected would ultimately contribute to more effective and efficient proceedings. The Bureau invited the public to submit comments on the Updated Rules of Practice. After considering the comments, the Bureau has decided to retain the amendments.

DATES: This action is effective on March 29, 2023.

FOR FURTHER INFORMATION CONTACT: Kevin E. Friedl or Christopher Shelton, Senior Counsel, Legal Division, at 202–435–7700. If you require this document in an alternative electronic format, please contact *CFPB_Accessibility@cfpb.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

The Consumer Financial Protection Act of 2010 (CFPA) establishes the Bureau as an independent bureau in the Federal Reserve System and assigns the Bureau a range of rulemaking, enforcement, supervision, and other authorities.[1] The Bureau's enforcement powers under the CFPA include section 1053, which authorizes the Bureau to conduct adjudication proceedings.[2] The Bureau finalized the original version of the Rules of Practice, which govern adjudication proceedings, in 2012 (2012 Rule).[3] The Bureau later finalized certain amendments, which addressed the issuance of temporary cease-and-desist orders, in 2014 (2014 Rule).[4]

II. Overview of the Updated Rules of Practice and Comments Received

The Bureau issued the Updated Rules of Practice in February 2022.[5] The Updated Rules of Practice were exempt from the notice-and-comment requirements of the Administrative Procedure Act, because they were a rule of agency organization, procedure, and practice.[6] Consequently, they were effective upon publication (although no adjudication proceedings have occurred under the Updated Rules of Practice). The Bureau invited the public to submit comments.

The Bureau received four comments. These came from a group of trade associations, a consumer advocacy organization, a bank holding company, and a legal foundation.[7] The group of trade associations noted that administrative adjudication can play an important and valuable role in an effective regulatory system by providing an efficient, and equally fair, alternative to civil litigation. However, the trade associations opposed the changes regarding the content of answers, bifurcation of proceedings, rulings on dispositive motions, and issue exhaustion. By contrast, the consumer advocacy organization supported the rule, stating that it simultaneously strengthens the ability of the agency to protect consumers and the rights of respondents subject to agency action. The bank holding company expressed support for the trade associations' comment. Finally, the legal foundation opposed the issue-exhaustion provision.

After carefully considering these comments, the Bureau has decided to retain the amendments made in the Updated Rules of Practice. The Bureau addresses the comments in more detail below.

III. Legal Authority

Section 1053(e) of the CFPA provides that the Bureau ''shall prescribe rules establishing such procedures as may be necessary to carry out'' section 1053.[8] Additionally, section 1022(b)(1) provides, in relevant part, that the Bureau's Director ''may prescribe rules . . . as may be necessary or appropriate to enable the Bureau to administer and carry out the purposes and objectives of the Federal consumer financial laws, and to prevent evasions thereof.'' [9] The Bureau issues this rule based on its authority under section 1053(e) and section 1022(b)(1).

IV. Section-by-Section Analysis

1081.114(a) Construction of Time Limits.

12 CFR 1081.114(a) (Rule 114(a)) governs the computation of any time limit that is prescribed by Rules of Practice, by order of the Director or the hearing officer, or by any applicable statute. The Updated Rules of Practice amended Rule 114(a) for the purpose of simplifying and clarifying it, based on similar amendments made to Federal Rule of Civil Procedure 6(a) in 2009.

As amended by the Updated Rules of Practice, Rule 114(a) provides for time periods to be computed in the following manner. First, exclude the day of the event that triggers the period. Second, count every day, including intermediate Saturdays, Sundays, and Federal holidays. Third, include the last day of the period unless it is a Saturday, Sunday, or Federal holiday as set forth in 5 U.S.C. 6103(a). When the last day is a Saturday, Sunday, or Federal holiday, the period runs until the end of the next day that is not a Saturday, Sunday, or Federal holiday.

[1] Title X of the Dodd-Frank Wall Street Reform and Consumer Protection Act, Public Law 111–203, 124 Stat. 1376, 1955–2113 (2010).

[2] 12 U.S.C. 5563; *see also* section 1052(b), 12 U.S.C. 5562(b) (addressing subpoenas).

[3] 77 FR 39057 (June 29, 2012); *see also* 76 FR 45337 (July 28, 2011) (interim final rule).

[4] 79 FR 34622 (June 18, 2014); *see also* 78 FR 59163 (Sept. 26, 2013) (interim final rule).

[5] 87 FR 10028 (Feb. 22, 2022).

[6] 5 U.S.C. 553(b).

[7] The Bureau also received other communications on the docket that did not relate to the topic of adjudication proceedings.

[8] 12 U.S.C. 5563(e). As courts have recognized, the term ''necessary'' is ''a 'chameleon-like' word'' whose meaning can vary based on context; in the context of section 1053(e), the Bureau interprets '''necessary' to mean 'useful,' 'convenient' or 'appropriate' rather than 'required' or 'indispensable.' '' *Prometheus Radio Project* v. *FCC,* 373 F.3d 372, 391–94 (3d Cir. 2004). Section 1053 sets out the fundamental features of Bureau adjudications, but it leaves many details open that can only be addressed through more specific Bureau procedures. In turn, those Bureau procedures could not be effective, or fair to the parties, if they were limited to only the most rudimentary steps that would be indispensable to holding a skeletal proceeding. Instead, the Bureau believes that Congress gave the Bureau room to adopt procedures that are useful in carrying out section 1053.

[9] 12 U.S.C. 5512(b)(1).

The Updated Rules of Practice also made adjustments to various specific deadlines in the Rules of Practice, to roughly compensate for the update in computation method. For example, a 10-day period under the previous computation method would most frequently correspond to a 14-day period under the updated computation method, so 10-day periods were generally changed to 14 days.

No comments opposed the amendments to Rule 114(a), and the Bureau is retaining them.

1081.115(b) Considerations in Determining Whether To Extend Time Limits or Grant Postponements, Adjournments and Extensions.

12 CFR 1081.115(b) (Rule 115(b)) concerns motions for extensions of time. Under the 2012 Rule, the provision stated that the Director or the hearing officer should adhere to a policy of strongly disfavoring granting motions for extensions of time, except in circumstances where the moving party makes a strong showing that the denial of the motion would substantially prejudice its case. It then listed factors that the Director or hearing officer will consider.

The Updated Rules of Practice simplified the provision, to state only that such motions are generally disfavored, while retaining the same list of factors that the Director or hearing officer will consider. The preamble explained that the Bureau continues to believe that extensions of time should generally be disfavored, but it believes that relatively more flexibility than the previous language provided may be appropriate.

No comments opposed the amendment to Rule 115(b), and the Bureau is retaining it.

1081.201(b) Content of Answer

12 CFR 1081.201(b) (Rule 201(b)) requires a respondent to file an answer containing, among other things, any affirmative defense.

The Updated Rules of Practice amended Rule 201(b) to make clear that the answer must include any avoidance, including those that may not be considered ''affirmative defenses.'' As the Securities and Exchange Commission (SEC) explained when it adopted a similar amendment to its rules of practice, timely assertion of such theories should help focus the use of prehearing discovery, foster early identification of key issues and, as a result, make the discovery process more effective and efficient.[10]

The comment by a group of trade associations opposed the amendment to Rule 201(b). The comment stated that the amendment would reduce protections for respondent companies in a way that will lead to a denial of due process. However, the comment did not articulate why a duty to include avoidances in the answer would be a denial of due process. The Bureau considers the amendment to Rule 201(b) to be a reasonable requirement that promotes early identification of issues, and the Bureau notes that the answer can later be amended in appropriate circumstances under 12 CFR 1081.202(a) (Rule 202(a)). The Bureau is retaining the amendment to Rule 201(b).

1081.203 Scheduling Conference

12 CFR 1081.203 (Rule 203) requires a scheduling conference with all parties and the hearing officer for the purpose of scheduling the course and conduct of the proceeding. Before that scheduling conference, Rule 203 requires the parties to meet to discuss the nature and basis of their claims and defenses, the possibilities for settlement, as well as the matters that will be discussed with the hearing officer at the scheduling conference. The Updated Rules of Practice made certain changes to the details of Rule 203, including renumbering its provisions. This discussion cites the provisions as renumbered.

First, the Updated Rules of Practice amended Rule 203(b) to require that the parties exchange a scheduling conference disclosure after that initial meeting, but before the scheduling conference. That disclosure must include a factual summary of the case, a summary of all factual and legal issues in dispute, and a summary of all factual and legal bases supporting each defense. The disclosure must also include information about the evidence that the party may present at the hearing, other than solely for impeachment, including (i) the contact information for anticipated witnesses, as well as a summary of the witness's anticipated testimony; and (ii) the identification of documents or other exhibits.

The Updated Rules of Practice also made certain amendments to Rules 203(c), (d), and (e). Amended Rule 203(c) provides that a party must supplement or correct the scheduling conference disclosure in a timely manner if the party acquires other information that it intends to rely upon at a hearing. Amended Rule 203(d) provides a harmless-error rule for failures to disclose in scheduling conference disclosures. Finally, the Updated Rules of Practice made certain minor clarifications to Rule 203(e), which governs the scheduling conference itself.

As the preamble to the Updated Rules of Practice stated, these amendments to Rule 203 are intended to foster early identification of key issues and, as a result, make the adjudication process, including any discovery process, more effective and efficient. They are also intended to, early in the process, determine whether the parties intend to seek the issuance of subpoenas or file dispositive motions so that, with input from the parties, the hearing officer can set an appropriate hearing date, taking into account the time necessary to complete the discovery or decide the anticipated dispositive motions.

The preamble to the Updated Rules of Practice recognized that, in most cases, the deadline for making the scheduling conference disclosure will also be the date the Office of Enforcement must commence making documents available to the respondent under 12 CFR 1081.206 (Rule 206). The preamble reiterated a statement from the preamble to the 2012 Rule, which was that the Bureau expects that the Office of Enforcement will make the material available as soon as possible in every case.[11] And even in cases where the Office of Enforcement cannot make those documents available within that time, a respondent may request a later hearing date and can move the hearing officer to alter the dates for either the scheduling conference or the scheduling conference disclosure.

No comments opposed the amendments to Rule 203, and the Bureau is retaining them.

1081.204(c) Bifurcation

The Updated Rules of Practice added a new 12 CFR 1081.204(c) (Rule 204(c)) to address bifurcation of proceedings. It provides that the Director may order that the proceeding be divided into two or more stages, if the Director determines that it would promote efficiency in the proceeding or for other good cause. For example, the Director may order that the proceeding have two stages, so that at the conclusion of the first stage the Director issues a decision on whether there have been violations of law and at the conclusion of the second stage the Director issues a final decision and order, including with respect to any remedies. The Director may make an order under Rule 204(c) either on the motion of a party or on the Director's own motion after inviting submissions by the parties. The Director may include, in that order or in later

[10] 81 FR 50211, 50219–20 (July 29, 2016).

[11] 77 FR 39057, 39072 (June 29, 2012).

orders, modifications to the procedures in the Rules of Practice in order to effectuate an efficient division into stages, or the Director may assign such authority to the hearing officer.[12]

The preamble to the Updated Rules of Practice noted that bifurcation is a standard case-management tool available to Federal district courts. It explained that Rule 204(c) will provide the Bureau with the flexibility to use bifurcation in adjudication proceedings, if warranted by particular cases, and to tailor its procedures to the circumstances of those bifurcated cases.

The comment by a consumer advocacy organization supported Rule 204(c). According to the organization's comment, separating the determination of whether there has been a violation of law from the issue of remedies would help promote the development of legal precedent and also save resources by the Bureau and respondents.

The comment by a group of trade associations opposed Rule 204(c). This comment argued that assigning too much authority to the Director risked depriving respondents of due process, because, in the commenters' view, the Director is insufficiently impartial. However, it is unclear why the decision to bifurcate a proceeding is any different from the many other decisions that the Director makes in an adjudication. The Director can and will adjudicate matters fairly, whether in bifurcated or non-bifurcated proceedings. As courts have consistently held, heads of executive agencies can perform adjudicative functions, and such adjudications provide due process of law. Accordingly, the Bureau is retaining Rule 204(c).

1081.206 Availability of Documents for Inspection and Copying

12 CFR 1081.206 (Rule 206) provides that the Bureau's Office of Enforcement will make certain documents available for inspection and copying. The Updated Rules of Practice amended Rule 206 to clarify certain categories of documents that may be withheld or information that may be redacted, as well as to make clear that the Office of Enforcement may produce those documents in an electronic format rather than making the documents available for physical inspection and copying.

As the preamble to the Updated Rules of Practice explained, the clarifying amendments regarding documents that may be withheld or information that may be redacted are based on amendments the SEC recently made to its rules of practice. Amended Rule 206(b)(1)(iv) makes clear that the Office of Enforcement need not produce a document that reflects only settlement negotiations between the Office of Enforcement and a person or entity who is not a current respondent in the proceeding. As the SEC explained when it amended its rules of practice, this amendment is consistent with the important public policy interest in candid settlement negotiations, will help to preserve the confidentiality of settlement discussions, and help safeguard the privacy of potential respondents with whom the Office of Enforcement has negotiated.[13] Amended Rule 206 also permits the Office of Enforcement to redact from the documents it produces information it is not obligated to produce (Rule 206(b)(2)(i)) and sensitive personal information about persons other than the respondent (Rule 206(b)(2)(ii)). These amendments also track the SEC's recent amendments to its rules of practice and are designed to provide further protections for sensitive personal information and to permit the redaction of information that is not required to be produced in the first place.

The Updated Rules of Practice also amended Rule 206(d) to change the date by which the Office of Enforcement must commence making documents available to the respondent, changing that date from seven days after service of the notice of charges to fourteen. This clarification harmonizes these timing provisions with 12 CFR 1081.119 (Rule 119), which protects the rights of third parties who have produced documents under a claim of confidentiality. The previous Rule 119 required a party to give a third party notice at least ten days prior to the disclosure of information obtained from that third party subject to a claim of confidentiality. Under the previous Rules of Practice, that meant that the Office of Enforcement had to provide notice to third parties *before* it commenced the adjudication proceeding because the Office of Enforcement had to give those third parties at least ten days' notice before producing the documents and the Office of Enforcement had to commence making documents available seven days after filing. The Updated Rules of Practice amended Rule 119 to require parties to notify the third parties at least seven days prior to the disclosure of information the third party produced under a claim of confidentiality. Together, Rules 119 and 206 now require the Office of Enforcement to commence making documents available fourteen days after service of the notice of charges and to notify third parties who produced documents subject to that disclosure requirement under a claim of confidentiality at least seven days before producing those documents.

Under the 2012 Rule, Rule 206(e) provided that the Office of Enforcement must make the documents available for inspection and copying at the Bureau's office where they are ordinarily maintained. The preamble to the 2012 Rule explained that the Bureau anticipated providing electronic copies of documents to respondents in most cases.[14] Subsequently, the Updated Rules of Practice amended Rule 206(e) to recognize this practice and expressly provide that the Office of Enforcement may produce those documents in an electronic format rather than making the documents available for inspection and copying. Under the amended Rule 206(e), the Office of Enforcement retains the discretion to make documents available for inspection and copying.

No comments opposed the amendments to Rule 206, and the Bureau is retaining them.

1081.208 Subpoenas and 1081.209 Depositions

The Updated Rules of Practice made certain interrelated changes to 12 CFR 1081.208 and 1081.209 (Rules 208 and 209).

Under the 2012 Rule, Rule 209 permitted parties to take depositions only if the witness was unable to attend or testify at a hearing. As the Bureau noted in the preamble to the 2012 Rule, the Bureau's Rules of Practice were modeled in part on the approach that the SEC took in its rules of practice.[15] Since that time, the SEC has amended its rules of practice to permit discovery depositions.[16]

The Updated Rules of Practice amended Rule 209 to permit discovery depositions—either by oral examination or written questions—in addition to depositions of unavailable witnesses. If a proceeding involves a single respondent, amended Rule 209(a)(1) allows the respondent and the Office of Enforcement to each depose up to three persons (*i.e.,* up to three depositions per side). If a proceeding involves multiple respondents, amended Rule 209(a)(2) allows respondents to collectively

[12] The new provision also clarifies that only the decision and order of the Director after the final stage, and not a decision of the Director after an earlier stage, will be a final decision and order for purposes of specified provisions of the Rules of Practice and section 1053(b) of the CFPA.

[13] 81 FR 50211, 50222 (July 29, 2016).

[14] 77 FR 39057, 39070 (June 29, 2012).

[15] 77 FR 39057, 39058 (June 29, 2012).

[16] 81 FR 50211 (July 29, 2016).

depose up to five persons and the Office of Enforcement to depose up to five persons (*i.e.,* up to five depositions per side). This approach is consistent with the approach the SEC adopted when it amended its rules of practice to allow depositions.[17] Under Rule 209(a)(3), a party may also move to take additional depositions, though that motion must be filed no later than 28 days prior to the hearing date. Amended Rule 209(a)(3) also sets forth the procedure for requesting to taking additional depositions.

The preamble to the Updated Rules of Practice explained that the above amendments to Rule 209 are intended to provide parties with further opportunities to develop arguments and defenses through deposition discovery, which may narrow the facts and issues to be explored during the hearing. Allowing depositions should facilitate the development of the case during the prehearing stage, which may result in more focused prehearing preparations, with issues distilled for the hearing and post-hearing briefing.

Under amended Rules 208(a) and 209(a), a party must request that the hearing officer issue a subpoena for the deposition. If the subpoena is issued, under amended Rule 209(d) the party must also serve written notice of the deposition. New Rule 208(e) governs the standard for issuance of subpoenas seeking depositions upon oral examination. Under Rule 208(e), the hearing officer will promptly issue any subpoena requiring the attendance and testimony of witnesses at a deposition only if the subpoena complies with Rule 209 and if the proposed deponent: (i) is a witness identified in the other party's scheduling conference disclosure now required under revised Rule 203(b); (ii) a fact witness; [18] (iii) is a designated expert witness under 12 CFR 1081.210(b) (Rule 210(b)); or (iv) a document custodian.[19] The preamble to the Updated Rules of Practice explained that fact witnesses, expert witnesses, and document custodians, whose knowledge of relevant facts does not arise from the Bureau's investigation, the Bureau's examination, or the proceeding, are the individuals most likely to have information relevant to the issues to be decided. Because the Bureau will also disclose to respondents the documents described in Rule 206 as well as witness statements upon request under 12 CFR 1081.207 (Rule 207), deposing Bureau staff whose only knowledge of relevant facts arose from the investigation, examination, or proceeding is unlikely to shed light on the events underlying the proceeding and will likely lead to impermissible inquiries into the mental processes and strategies of Bureau attorneys or staff under their direction. Not only does this implicate privileges or the work-product doctrine, but deposition of Bureau staff in this manner can be burdensome and disruptive because it embroils the parties in controversies over the scope of those protections.

The Updated Rules of Practice also amended Rule 208(e)(2) to provide a process for the hearing officer to request more information about the relevance or scope of the testimony sought and to refuse to issue the subpoena or issue it only upon conditions. The preamble to the Updated Rules of Practice explained that this provision is intended to foster use of depositions where appropriate and encourage meaningful discovery, within the limits of the number of depositions provided per side. The provision should encourage parties to focus any requested depositions on those persons most likely to yield relevant information and thereby make efficient use of time during the prehearing stage.

Under the 2012 Rule, Rule 208(a) permitted parties to request issuance of subpoenas requiring the attendance and testimony of witnesses at the designated time and place of the hearing, for the production of documentary or other tangible evidence, or for the deposition of a witness who will be unavailable for the hearing. Rule 210 also permitted the deposition of expert witnesses. The Updated Rules of Practice kept these provisions, making conforming amendments to account for the new provision permitting discovery depositions. A subpoena seeking the deposition of a witness who will be unavailable for the hearing does not count against the number of depositions permitted under Rule 209(a).

As the preamble to the Updated Rules of Practice explained, the above amendments expand the available legitimate mechanisms respondents may use to conduct discovery, providing respondents a clearer understanding of the bases of the Bureau's factual contentions while reducing the costs and burdens of hearings on all parties. Additionally, the grounds for a hearing officer denying a request to issue a subpoena under Rule 208(e)—that it is ''unreasonable, oppressive, excessive in scope, or unduly burdensome''—are consistent with well-established judicial standards, and hearing officers will, in their consideration of requests for subpoenas, act diligently and in good faith to implement the standards for refusing or modifying deposition subpoenas set forth under the amended rule. These combined changes are overall less burdensome yet are equally effective in the resolution of the case on the merits.

Amended Rule 209 also includes additional procedures governing the taking of depositions. For example, once a subpoena for a deposition is issued, the party seeking the deposition must serve written notice of the deposition pursuant to Rule 209(d). That notice must include several things, including the time and place of the deposition, the identity of the deponent, and the method for recording the deposition. The preamble to the Updated Rules of Practice explained that these procedural provisions track the SEC's recent amendments to its rules of practice.[20] They govern the process for seeking depositions by written questions and the taking of all depositions, including setting forth the deposition officer's duties, the process for stating objections, motions to terminate or limit the deposition, and the process for finalizing a transcript.

Finally, the Updated Rules of Practice added a new Rule 208(l), which addresses the relationship of subpoenas to the scheduling of the hearing. In the 2012 Rule, one reason why the Bureau did not—as a general matter—permit discovery depositions was because the additional time required for depositions before the hearing could be in tension with the statutory timetable for hearings under section 1053(b) of the CFPA.[21] As the preamble to the 2012 Rule noted, prehearing depositions would present extreme scheduling difficulties in those cases in which respondents did not request hearing dates outside the default timeframe under section 1053(b), which provides for the hearing to be held 30

[17] *Id.* at 50216.

[18] Under amended Rule 208(e), this type of proposed deponent must have witnessed or participated in any event, transaction, occurrence, act, or omission that forms the basis for any claim asserted by the Office of Enforcement, any defense, or anything else required to be included in an answer pursuant to Rule 201(b), by any respondent in the proceeding (this excludes a proposed deponent whose only knowledge of these matters arises from the Bureau's investigation, the Bureau's examination, or the proceeding).

[19] This excludes Bureau officers or personnel who have custody of documents or data that was produced from the Office of Enforcement to the respondent. In most circumstances, the Bureau officers or personnel were not the original custodian of the documents. Where the Bureau was the original custodian of the document—for example, a report of examination under 12 CFR 1081.303(d)(2) (Rule 303(d)(2))—there is no need to depose a document custodian as that report is admissible without a sponsoring witness.

[20] 81 FR 50211, 50215–17 (July 29, 2016).

[21] 12 U.S.C. 5563(b).

to 60 days after service of the notice of charges, unless an earlier or a later date is set by the Bureau, at the request of any party so served.[22] The new Rule 208(l) addresses this scheduling obstacle to depositions and other discovery, by specifying that a respondent's request for issuance of a subpoena constitutes a request that the hearing not be held until after a reasonable period, determined by the hearing officer, for the completion of discovery.[23] This is because a request for discovery reasonably entails a delay for the discovery process to be completed.

The preamble to the Updated Rules of Practice explained that, given this resolution of the 2012 Rule's scheduling concern, the Bureau believes that the benefits of discovery depositions under the amended Rule 209, as described earlier, outweigh other concerns expressed in the preamble to the 2012 Rule about the time, expense, and risk of collateral disputes arising from depositions.[24]

The comment that the Bureau received from a consumer advocacy organization supported the amendments to Rules 208 and 209. The consumer advocacy organization stated that discovery depositions would allow respondents to further develop their cases, which should lead to a more informed and deliberative process. It also stated that the amendments should prevent disruption from surprise witnesses. No comments opposed the amendments to Rules 208 and 209, and the Bureau is retaining them.

1081.211 Interlocutory Review

12 CFR 1081.211 (Rule 211) governs interlocutory review by the Director. Under the 2012 Rule, the provision included language stating that interlocutory review is disfavored, and that the Director will grant a petition to review a hearing officer's ruling or order prior to the Director's consideration of a recommended decision only in extraordinary circumstances. The Updated Rules of Practice simplified this language to state only that interlocutory review is generally disfavored. The preamble explained that, although interlocutory review remains disfavored, the Bureau believes that there can be situations where interlocutory review can contribute to the efficiency of proceedings short of extraordinary circumstances.

No comments opposed the amendment to Rule 211, and the Bureau is retaining it.

1081.212 Dispositive Motions

The Updated Rules of Practice relocated the previous 12 CFR 1081.212(g) and (h) (Rule 212(g) and (h)), which addressed oral argument and decisions on dispositive motions, respectively, to form part of 12 CFR 1081.213 (Rule 213). Rule 213 is discussed in the next section of this section-by-section analysis.

Additionally, the Updated Rules of Practice added new Rule 212(g) to address the relationship of dispositive motions to the scheduling of the hearing. It is codified as Rule 212(g) but unrelated to the previous Rule 212(g). It is analogous to Rule 208(l), discussed above. It specifies that a respondent's filing of a dispositive motion constitutes a request that the hearing not be held until after the motion is resolved.[25] This is because the filing of a dispositive motion, whose purpose is to avoid or limit the need for a hearing, reasonably entails a delay of that hearing so that the motion can be resolved.

No comments opposed the amendments to Rule 212, and the Bureau is retaining them.

1081.213 Rulings on Dispositive Motions

The Updated Rules of Practice amended Rule 213 to adopt a new procedure for rulings on dispositive motions, based on a procedure used by the Federal Trade Commission (FTC). The Bureau also made related technical changes for clarity.

Under the 2012 Rule, the Director could, ''at any time, direct that any matter be submitted to him or her for review.'' [26] However, prior to the Updated Rules of Practice, there was no specific procedure for the Director to exercise this discretion in the context of dispositive motions.

As amended by the Updated Rules of Practice, Rule 213(a) provides that the Director will either rule on a dispositive motion, refer the motion to the hearing officer, or rule on the motion in part and refer it in part. This is based on a similar process under the FTC's rules of practice.[27] The preamble to the Updated Rules of Practice noted that Bureau agrees with the reasoning of the FTC when it adopted this process a decade ago. The FTC explained that the head of the agency has authority and expertise to rule initially on dispositive motions, and doing so can improve the quality of decision-making and expedite the proceeding.[28] As the FTC further noted, an erroneous decision by an administrative law judge on a dispositive motion may lead to unnecessary briefing, hearing, and reversal, resulting in substantial costs and delay to the litigants.[29] The preamble to the Updated Rules of Practice explained that adopting this process will give the Director the flexibility to decide whether a given dispositive motion would be most efficiently addressed by the hearing officer, with ultimate review by the Director, or simply by the Director.

Rule 213(b) was amended to provide that, if the Director rules on the motion, the Director must do so within 42 days following the expiration of the time for filing all responses and replies, unless there is good cause to extend the deadline. If the Director refers the motion to the hearing officer, the Director may set a deadline for the hearing officer to rule. This was based on the parallel timing requirements under the FTC's rules of practice.[30] Under the 2012 Rule, Rule 212(h) provided a 30-day timeframe for the hearing officer to decide dispositive motions, subject to extension.[31] But the preamble to the Updated Rules of Practice stated that the FTC's somewhat more flexible approach to timing is warranted, given that the Director must first decide whether or not to refer the motion to the hearing officer and also has other responsibilities as the head of the agency. The preamble stated that that the overall efficiency gains to adjudication proceedings from the new process, as discussed above, should generally compensate for any delays associated with a more flexible deadline.

Rule 213(c) was amended to provide that, at the request of any party or on the Director or hearing officer's own motion, the Director or hearing officer

[22] 77 FR 39057, 39076 (June 29, 2012).

[23] Rule 208(l) goes on to specify that the hearing officer will decide whether to grant such a request. If the request is granted, the hearing officer will set a deadline for the completion of discovery and schedule the specific date of the hearing, in consultation with the parties. Rule 208(l) does not apply to a subpoena for the attendance and testimony of a witness at the hearing or a subpoena to depose a witness unavailable for the hearing.

[24] 77 FR 39057, 39076 (June 29, 2012).

[25] Rule 212(g) goes on to state that the hearing officer will decide whether to grant such a request. If the request is granted, the hearing officer will schedule the specific date of the hearing, in consultation with the parties.

[26] 12 CFR 1081.211(a).

[27] 16 CFR 3.22(a). This FTC provision does not specifically discuss a situation where the agency head rules on the motion in part and refers it in part. The Bureau has included language in Rule 213(a) to specifically discuss this situation.

[28] 74 FR 1803, 1809–10 (Jan. 13, 2009).

[29] *Id.* at 1809–10.

[30] 16 CFR 3.22(a). This FTC provision includes an interval of 45 days, but the Updated Rules of Practice generally adopted time intervals in increments of seven days.

[31] *See* 12 CFR 1081.115 (change of time limits).

(as applicable) may hear oral argument on a dispositive motion. The amended Rule 213(c) was identical to the previous Rule 212(g), except that it was updated to reflect the fact that the Director would be the appropriate official to hear oral argument, if any, to the extent the Director is deciding the motion.

Finally, Rule 213(d) was amended to describe the types of rulings that the Director or hearing officer may make on a dispositive motion. It consolidated language from the previous Rules 212(h) and 213, with updates to reflect the fact that the Director may be the official who decides the motion, as well as other technical changes for clarity.

The comment by a group of trade associations opposed the amendments to Rule 213. This comment argued that having the Director decide dispositive motions is inconsistent with due process. It asserted that the Director is not impartial, since the Director would have previously authorized the Office of Enforcement to file the notice of charges. The comment further argued that Directors can change depending on the administration, so vesting authority in the Director would lead to instability in legal doctrine.

The Bureau disagrees. The Director can and will act fairly in performing his or her adjudicative functions. The Director's ability to do so is unaffected by whether he or she decides that a dispositive motion would be most efficiently addressed by the hearing officer, with ultimate review by the Director, or simply by the Director. Also, as noted, it was already the case under the 2012 Rule that the Director could, ''at any time, direct that any matter be submitted to him or her for review.'' The adoption of a specific process for review of dispositive motions does not substantively change the Director's adjudicative role. In sum, Rule 213 is entirely consistent with due process principles.

The Bureau also disagrees with the suggestion that the changes to Rule 213 will lead to instability in legal doctrine. Commenters' observation that leadership of the agency will change over time, including as presidential administrations change, is true regardless of whether the Director or the hearing officer reviews a dispositive motion in the first instance. It is also true of many other agencies that use adjudication proceedings, including both single-head and multimember agencies.

Accordingly, the Bureau is retaining the amendments to Rule 213.

1081.400(a) Time Period for Filing Preliminary Findings and Conclusions

12 CFR 1081.400(a) (Rule 400(a)) sets the deadline for the hearing officer to file preliminary findings and conclusions. Under the 2012 Rule, subject to possible extensions, the hearing officer was required to file a recommended decision (now known as ''preliminary findings and conclusions'') no later than 90 days after the deadline for filing post-hearing responsive briefs pursuant to 12 CFR 1081.305(b) (Rule 305(b)) and in no event later than 300 days after filing of the notice of charges. The Updated Rules of Practice extended the latter, 300-day interval to 360 days, in light of the amendments to Rule 209 that expanded the opportunities for depositions. The Updated Rules of Practice also changed terminology from ''recommended decision'' to ''preliminary findings and conclusions'' throughout the Rules of Practice, as discussed later in this section-by-section analysis.

The comment by a consumer advocacy organization supported the extension of the 300-day deadline to 360 days. It noted that the extension would benefit respondents by giving them more time to develop their cases and would provide for a more informed and deliberative agency process. Other commenters did not address the amendments to Rule 400(a), and the Bureau is retaining them.

1081.408 Issue Exhaustion

The Updated Rules of Practice added a new 12 CFR 1081.408 (Rule 408), which addresses issue exhaustion.

As the Supreme Court has explained: ''Administrative review schemes commonly require parties to give the agency an opportunity to address an issue before seeking judicial review of that question.'' [32] These requirements can be ''creatures of statute or regulation'' or else are ''judicially created.'' [33] It is ''common for an agency's regulations to require issue exhaustion in administrative appeals. And when regulations do so, courts reviewing agency action regularly ensure against the bypassing of that requirement by refusing to consider unexhausted issues.'' [34] Consistent with the Court's case law, the Administrative Conference of the United States has recommended that agencies address issue exhaustion requirements in their regulations.[35]

The Updated Rules of Practice adopted Rule 408, which is an express regulation on issue exhaustion. Section 1053 of the CFPA contemplates that the Bureau will conduct a proceeding to decide whether to issue a final order, and then parties may petition courts to review the Bureau's decision, based on the record that was before the Bureau.[36] But if parties do not adequately present their arguments to the Bureau, it frustrates this statutory scheme. Accordingly, having procedures to address issue exhaustion in adjudication proceedings is important to carry out section 1053.[37] Additionally, having express procedures on this subject should benefit both the Bureau and the parties, by avoiding any potential confusion about how parties must raise arguments in adjudication proceedings.

Rule 408(a) defines the new Rule 408's scope. It applies to any argument to support a party's case or defense, including any argument that could be a basis for setting aside Bureau action under 5 U.S.C. 706 or any other source of law. This broad scope ensures that the Bureau has the opportunity to consider any issue affecting its proceedings.

Rule 408(b) provides, first, that a party must raise an argument before the hearing officer, or else it is not preserved for later consideration by the Director. Second, a party must raise an argument before the Director, or else it is not preserved for later consideration by a court. This is consistent with the roles of the hearing officer and Director.[38]

[32] *Carr* v. *Saul,* 141 S. Ct. 1352, 1358 (2021).

[33] *Id.*

[34] *Sims* v. *Apfel,* 530 U.S. 103, 108 (2000) (internal citation omitted).

[35] 86 FR 6612, 6619 (Jan. 22, 2021) (recommendation 2.k).

[36] *See generally* section 1053(b), 12 U.S.C. 5563(b).

[37] Section 1053(e), 12 U.S.C. 5563(e). The issue exhaustion provision is also independently authorized by section 1022(b)(1), 12 U.S.C. 5512(b)(1), based on either of two grounds. First, establishing orderly rules for issue exhaustion is appropriate to enable the Bureau to ''administer and carry out the purposes and objectives of'' section 1053, for the reasons discussed above and below. *Id.* Second, these issue-exhaustion rules ''prevent evasions'' of section 1053 and the Rules of Practice by some parties, who otherwise may not adequately present their arguments to the Bureau. *Id.; see Woodford* v. *Ngo,* 548 U.S. 81, 90 (2006) (explaining that ''exhaustion requirements are designed to deal with parties who do not want to exhaust'').

[38] The Bureau notes that in cases where Rule 408(b) interacts with the Bureau's revisions to Rule 213, it yields a common-sense result. If the Director rules on a dispositive motion under Rule 213 rather than referring it to the hearing officer, then the first sentence of Rule 408(b)—which normally requires parties to raise arguments before the hearing officer in the first instance—would be inapplicable to the Director's consideration of the motion. This is

Continued

Rule 408(c) provides that an argument must be raised in a manner that complies with the Rules of Practice and that provides a fair opportunity to consider the argument.

Finally, Rule 408(d) clarifies that the Director has discretion to consider an unpreserved argument, including by considering it in the alternative. It also clarifies that, if the Director considers an unpreserved argument in the alternative, the argument remains unpreserved. Because issue exhaustion requirements serve to protect the agency's processes, it is appropriate for the head of the agency to retain discretion to waive those issue exhaustion requirements in appropriate cases.[39] If a party believes that there is good cause for the issue exhaustion requirements to not be applied in a particular context, the proper course is to timely request that the Director exercise this discretion. The Director may also do so on the Director's own initiative. On the other hand, if the Director merely considers an unpreserved argument in the alternative, that should not be construed as a waiver by the Director of the party's failure to appropriately raise the argument.

Comments by the group of trade associations and by the legal foundation opposed Rule 408. The trade associations stated that the provision would reduce access to Federal courts. The legal foundation argued that Rule 408 should not cover ''structural'' constitutional claims. According to the legal foundation, Rule 408 strips courts of the power to police the separation of powers and denies respondents any forum to litigate structural constitutional claims.[40]

However, Rule 408 does not foreclose respondents from raising any claim in Federal court, including constitutional claims. Like any issue-exhaustion regulation, it merely requires them to give the agency a fair opportunity to address the issue first, before invoking it to attack the agency's decision after the fact. For these reasons and the reasons explained in the Updated Rules of Practice, the Bureau is retaining Rule 408.

Global Technical Amendments

In addition to the specific changes outlined above, the Updated Rules of Practice made certain technical amendments throughout the Rules of Practice.

First, the Updated Rules of Practice retitled the hearing officer's ''recommended decision'' as ''preliminary findings and conclusions.'' The preamble explained that the new title is more descriptive of this component of an adjudication proceeding. The preamble also emphasized that this is a terminological change, and preliminary findings and conclusions remain a recommended decision for purposes of the Administrative Procedure Act.

Second, the Updated Rules of Practice made changes to ensure that the language of the Rules of Practice is gender inclusive.

Third, consistent with the current Federal Rules of Civil Procedure, the Updated Rules of Practice replaced used of the term ''shall'' with the terms ''must,'' ''may,'' ''will,'' or ''should,'' depending on the context, because the term ''shall'' can sometimes be ambiguous.[41]

Fourth, the Updated Rules of Practice replaced certain uses of the term ''the Bureau'' with either ''the Director,'' ''the Office of Administrative Adjudication,'' or ''the Office of Enforcement,'' in order to avoid ambiguity about which Bureau organ is being referenced.

Fifth, as discussed in the section-by-section analysis for Rule 114(a), the Updated Rules of Practice adjusted various time periods in the Rules of Practice.

Finally, the Updated Rules of Practice made technical changes to requirements in 12 CFR 1081.111(a), 1081.113(d)(2), and 1081.405(e) (Rules 111(a), 113(d)(2), and 405(e)) regarding filing of certain papers by the hearing officer and Director and service of those papers by the Office of Administrative Adjudication.

No comments opposed these technical amendments, and the Bureau is retaining them.

V. Section 1022(b)(2) Analysis

In developing the Updated Rules of Practice and this rule, the Bureau has considered the rule's benefits, costs, and impacts in accordance with section 1022(b)(2)(A) of the CFPA.[42] In addition, the Bureau has consulted or offered to consult with the prudential regulators and the FTC, including regarding consistency of the Updated Rules of Practice and this rule with any prudential, market, or systemic objectives administered by those agencies, in accordance with section 1022(b)(2)(B) of the CFPA.[43]

The Updated Rules of Practice included the below analysis of costs, benefits, or impacts. No commenter addressed that analysis, and this rule adopts the Updated Rules of Practice without change, so the Bureau is adopting the same analysis for this rule.

As with the 2012 Rule, the Updated Rules of Practice neither impose obligations on consumers, nor are expected to affect their access to consumer financial products or services. For purposes of this 1022(b)(2) analysis, the Bureau compares the effect of the Updated Rules of Practice against the baseline of the Rules of Practice as they existed before the Updated Rules of Practice, as established by the 2012 Rule and amended by the 2014 Rule.

The Rules of Practice are intended to provide an expeditious decision-making process. An expeditious decision-making process may benefit both consumers and covered persons to the extent that it is used in lieu of proceedings initiated in Federal district court. A clear and efficient process for the conduct of adjudication proceedings benefits consumers by providing a systematic process for protecting them from unlawful behavior. At the same time, a more efficient process affords covered persons with a cost-effective way to have their cases heard. The 2012 Rule adopted an affirmative disclosure approach to fact discovery, pursuant to which the Bureau makes available to respondents the information obtained by the Office of Enforcement from persons not employed by the Bureau prior to the institution of proceedings,

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because the Director's ruling on the motion would not be ''later'' consideration by the Director after the hearing officer. On the other hand, the second sentence of Rule 408(b) would be applicable, and arguments not properly raised before the Director in briefing on the motion would not be preserved for later consideration by a court.

[39] *See, e.g., Am. Farm Lines* v. *Black Ball Freight Serv.,* 397 U.S. 532, 539 (1970) (It ''is always within the discretion of . . . an administrative agency to relax or modify its procedural rules adopted for the orderly transaction of business before it when in a given case the ends of justice require it.'').

[40] The legal foundation's comment also cites *Carr* v. *Saul,* 141 S. Ct. 1352 (2021), a case where the Supreme Court held that social security claimants were not required to exhaust Appointments Clause claims before Social Security Administration ALJs. The comment argues that this means that issue exhaustion does not apply to structural constitutional claims. However, this reflects a misreading of *Carr.* The Court emphasized that it was addressing a situation where ''statutes and regulations are silent,'' and so the question presented in *Carr* was whether the Court should ''impose a *judicially created* issue-exhaustion requirement.'' *Id.* at 1358 (emphasis added). Even in that context, the Court relied on several factors ''taken together,'' only one of which related to the constitutional nature of the claims. *See id.* at 1358–62. *Carr* does not stand for the proposition that an issue-exhaustion regulation cannot address constitutional claims.

[41] Fed. R. Civ. P. 1, advisory committee's notes to 2007 amendment.

[42] 12 U.S.C. 5512(b)(2)(A).

[43] 12 U.S.C. 5512(b)(2)(B). Whether section 1022(b)(2)(A) and section 1022(b)(2)(A)(B) are applicable to this rule is unclear, but in order to inform the rulemaking more fully the Bureau performed the described analysis and consultations.

in connection with the investigation leading to the institution of proceedings that is not otherwise privileged or protected from disclosure. This affirmative disclosure obligation was intended to substitute for the traditional civil discovery process, which can be both time-consuming and expensive. By changing this process to allow for a limited number of depositions by both the Office of Enforcement and respondents, the Updated Rules of Practice increases the cost of the process in both time and money, relative to the baseline. At the same time, to the extent that a limited number of depositions makes hearings proceed more efficiently, the rule may reduce costs. In addition, since promulgating the 2012 Rule, the Bureau has only brought two cases through the administrative adjudication process from start to finish. As such, the Bureau expects there to be few cases in the future that would have benefited from the more limited deposition procedure in the 2012 Rule. The Bureau expects the amended procedure to still be faster and less expensive than discovery through a Federal district court. To the extent that adding additional discovery enables more cases that would otherwise be initiated in Federal court to instead be initiated through the administrative adjudication process, both consumers and covered persons will benefit.

In addition, in the 1022(b)(2) analysis for the 2012 Rule, the Bureau stated that a benefit of the Rule was its similarity to existing rules of the prudential regulators, the FTC, and the SEC. The SEC has since amended its rules, and many of the changes in these amendments will align the Bureau's rules with the new SEC rules and those of other agencies. The similarity of the Updated Rules of Practice to other agencies' rules should further reduce the expense of administrative adjudication for covered persons.

Further, the Updated Rules of Practice have no unique impact on insured depository institutions or insured credit unions with less than $10 billion in assets described in section 1026(a) of the CFPA. Finally, the Updated Rules of Practice do not have a unique impact on rural consumers.

VI. Regulatory Requirements

The preamble to the Updated Rules of Practice explained that, as a rule of agency organization, procedure, or practice, it was exempt from the notice-and-comment rulemaking requirements of the Administrative Procedure Act.[44] However, the Bureau accepted comments on the rule and is issuing this rule after considering those comments.[45]

Because no notice of proposed rulemaking was required, the Regulatory Flexibility Act does not require an initial or final regulatory flexibility analysis for this rule.[46] Moreover, the Bureau's Director certifies that this rule will not have a significant economic impact on a substantial number of small entities. Therefore, an analysis is also not required for that reason.[47] The rule imposes compliance burdens only on the handful of entities that are respondents in adjudication proceedings or third-party recipients of discovery requests. Some of the handful of affected entities may be small entities under the Regulatory Flexibility Act, but they would represent an extremely small fraction of small entities in consumer financial services markets. Accordingly, the number of small entities affected is not substantial.

The Bureau has also determined that this rule does not impose any new or revise any existing recordkeeping, reporting, or disclosure requirements on covered entities or members of the public that would be collections of information requiring approval by the Office of Management and Budget under the Paperwork Reduction Act.[48]

List of Subjects in 12 CFR Part 1081

Administrative practice and procedure, Banks, banking, Consumer protection, Credit unions, Law enforcement, National banks, Savings associations, Trade practices.

Rohit Chopra,

Director, Consumer Financial Protection Bureau.

[FR Doc. 2023–04109 Filed 3–28–23; 8:45 am]

BILLING CODE 4810–AM–P

[44] 5 U.S.C. 553(b).

[45] The comment by the group of trade associations requested that the Bureau propose a new rule based on their objections to aspects of the Updated Rules of Practice. However, the Bureau has considered these objections and does not agree with them for the reasons discussed in the section-by-section analysis, so the Bureau is not issuing a new proposal based on them.

[46] 5 U.S.C. 603, 604.

[47] 5 U.S.C. 605(b).

[48] 44 U.S.C. 3501–3521.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. FAA–2023–0137; Special Conditions No. 25–836–SC]

Special Conditions: The Boeing Company Model 777–9 Airplane; Installation of Large Non-Structural Glass in the Passenger Compartment

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final special conditions; request for comments.

SUMMARY: These special conditions are issued for the The Boeing Company (Boeing) Model 777–9 series airplane. This airplane will have a novel or unusual design feature when compared to the state of technology envisioned in the airworthiness standards for transport-category airplanes. This design feature is the installation of large, non-structural glass in the passenger cabin. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

DATES: This action is effective on Boeing on March 29, 2023. Send comments on or before May 15, 2023.

ADDRESSES: Send comments identified by Docket No. FAA–2023–0137 using any of the following methods:

- *Federal eRegulations Portal:* Go to *https://www.regulations.gov/* and follow the online instructions for sending your comments electronically.
- *Mail:* Send comments to Docket Operations, M–30, U.S. Department of Transportation (DOT), 1200 New Jersey Avenue SE, Room W12–140, West Building Ground Floor, Washington, DC 20590–0001.
- *Hand Delivery or Courier:* Take comments to Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- *Fax:* Fax comments to Docket Operations at 202–493–2251.

Privacy: Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in title 14, Code of Federal Regulations (14 CFR), § 11.35, the FAA will post all comments

received without change to *https://www.regulations.gov/,* including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about these special conditions.

Confidential Business Information: Confidential Business Information (CBI) is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to these special conditions contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to these special conditions, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as ''PROPIN.'' The FAA will treat such marked submissions as confidential under the FOIA, and the indicated comments will not be placed in the public docket of these special conditions. Send submissions containing CBI to the individual listed in the **FOR FURTHER INFORMATION CONTACT** section below. Comments the FAA receives, which are not specifically designated as CBI, will be placed in the public docket for these special conditions.

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

FOR FURTHER INFORMATION CONTACT: Shannon Lennon, Human Machine Interface Section, AIR–626, Transport Standards Branch, Policy and Innovation Division, Aircraft Certification Service, Federal Aviation Administration, 2200 South 216th Street, Des Moines, Washington 98198; telephone and fax 206–231–3209; email *Shannon.Lennon@faa.gov.*

SUPPLEMENTARY INFORMATION: The substance of these special conditions has been published in the **Federal Register** for public comment in several prior instances with no substantive comments received. Therefore, the FAA finds, pursuant to 14 CFR 11.38(b), that new comments are unlikely, and notice and comment prior to this publication are unnecessary.

Comments Invited

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

The FAA will consider all comments received by the closing date for comments, and will consider comments filed late if it is possible to do so without incurring delay. The FAA may change these special conditions based on the comments received.

Background

On August 19, 2022, Boeing applied for an amendment to Type Certificate No. T00001SE to include the new Model 777–9 series airplane. The Boeing Model 777–9 series airplane, which is a derivative of the Model 777–300ER currently approved under Type Certificate No. T00001SE, is a twin-engine, transport category airplane, with capacity for 495 passengers, and a maximum takeoff weight of 775,000 pounds.

Type Certification Basis

Under the provisions of title 14, Code of Federal Regulations (14 CFR), § 21.101, Boeing must show that the Model 777–9 airplane meets the applicable provisions of the regulations listed in Type Certificate No. T00001SE, or the applicable regulations in effect on the date of application for the change, except for earlier amendments as agreed upon by the FAA.

If the Administrator finds that the applicable airworthiness regulations (*e.g.,* 14 CFR part 25) do not contain adequate or appropriate safety standards for the Boeing Model 777–9 series airplane because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

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

In addition to the applicable airworthiness regulations and special conditions, the Boeing Model 777–9 series airplane must comply with the fuel vent and exhaust emission requirements of 14 CFR part 34 and the noise certification requirements of 14 CFR part 36.

The FAA issues special conditions, as defined in 14 CFR 11.19, in accordance with § 11.38, and they become part of the type certification basis under § 21.101.

Novel or Unusual Design Features

The Boeing Model 777–9 series airplane will incorporate the following novel or unusual design feature:

This design feature is the installation of large, non-structural glass in the passenger cabin. Possible installations of large non-structural glass items include, but are not limited to, the following items:

- Glass partitions
- Glass floor installations
- Glass attached to the ceiling
- Glass parts integrated in the stairway
- Wall or Door mounted mirrors and glass panels
- Mirrors as part of a door blow out panel
- Glass plate installed in a doorframe
- Washstand with glass-panel

The installation of these glass items in the passenger compartment, which can be occupied during taxi, take-off and landing (TT&L), is a novel or unusual design feature with respect to the installed material. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for these design features.

Discussion

The use of glass results in trade-offs between the one unique characteristic of glass—its capability for undistorted or controlled light transmittance, or transparency—and the negative aspects of the material. Glass, in its basic form as annealed, untreated sheet, plate, or float glass, when compared to metals, is extremely notch-sensitive, has a low fracture resistance, has a low modulus of elasticity, and can be highly variable in its properties. While reasonably strong, it is nonetheless not a desirable material for traditional airplane applications because it is heavy (about the same density as aluminum), and when it fails, it breaks into extremely sharp fragments that have the potential for injury, and which have been known to be lethal. Thus, the use of glass traditionally was limited to windshields, and instrument or display transparencies. The regulations in 14 CFR 25.775 only address, and likewise only recognize, the unique use of glass in windshield or window applications where no other material will serve. This

regulation does address the adverse properties of glass, but pilots occasionally are injured from shattered glass windshields.

The FAA divides other uses of glass in the passenger cabin into four groups. These groups were created to address the practical and functional uses of glass. The four groups are as follows:

The first group is glass items installed in rooms or areas in the cabin that are not occupied during taxi, takeoff, and landing (TT&L), and a person does not have to enter or pass through the room or area to get to any emergency exit.

The second group is glass integrated into a functional device the operation of which is dependent upon the characteristics of glass, such as instrument or indicator protective transparencies, or monitor screens such as liquid crystal displays or plasma displays. This group may be installed in any area in the cabin regardless of occupancy during TT&L. Acceptable means of compliance for these items may depend on the size and specific location of the device containing the glass.

The third group is small glass items installed in occupied rooms or areas during TT&L, or rooms or areas that a person does not have to enter or pass through to get to any emergency exit. The FAA defines a small glass item as less than 8.8 lbs (4 kg) in mass.

The fourth group is large glass items, the subject of these special conditions, installed in occupied rooms or areas during TT&L, or rooms or areas that a person must enter or pass through to get to any emergency exit. A large glass item is defined as 8.8 lbs (4 kg) or greater in mass. Groups of glass items that collectively weigh 4 kg or more would also be included. The mass is based on the amount of glass that becomes hazardous in high inertial loads.

The glass items in groups one, two, and three are restricted to applications where the potential for injury is either highly localized, such as flight-instrument faces, or the location is such that injury due to failure of the glass is unlikely, for example mirrors in lavatories, because these installations necessitate the use of glass. These glass items typically are addressed in a method-of-compliance issue paper for each project based on existing part 25 regulations, or in established policy. These issue papers identify specific tests that could include abuse loading and ball-impact testing. In addition, these items are subject to the inertia loads contained in § 25.561, and maximum positive-differential pressure for items like video monitors to meet § 25.789.

The items in group four are much larger and heavier than previously approved, and raise additional safety concerns. These large, heavy glass panels, primarily installed as architectural features, were not envisioned in the regulations. The unique aspects of glass, with the potential to become highly injurious or lethal objects during emergency landing, minor crash conditions, or in flight, warrant a unique approach to certification that addresses the characteristics of glass that prevented its use in the past. These special conditions were developed to ensure that airplanes with large glass features in passenger cabins provide the same level of safety as airplanes using traditional, lightweight materials. The FAA reiterates this intention in the text of the special conditions by qualifying their use for group four glass items.

These special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

Applicability

As discussed above, these special conditions are applicable to the Boeing Model 777–9 airplane. Should the type certificate for that model be amended later to include any other model that incorporates the same novel or unusual design feature, or should any other model already included on the same type certificate be modified to incorporate the same novel or unusual design feature, these special conditions would apply to the other model as well.

Conclusion

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

List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

Authority Citation

The authority citation for these special conditions is as follows:

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

The Special Conditions

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the type certification basis for The Boeing Company Model 777–9 series airplanes.

For large glass items (a single item, or a collective group of glass items, that weigh 4 kg or more in mass) installed in passenger-occupied rooms or areas during taxi, takeoff, and landing, or installed in rooms or areas that occupants must enter or pass through to access any emergency exit, the glass installations on the Boeing Model 777–9 series airplanes must meet the following conditions:

1. Material Fragmentation—The glass used must be tempered or otherwise treated to ensure that when fractured, it breaks into small pieces with relatively dull edges. The glass component installation must retain all glass fragments to minimize the danger from flying glass shards or pieces. The applicant must demonstrate this by impact and puncture testing and testing to failure.

2. Strength—The glass component must be strong enough to meet the load requirements for all flight and landing loads, including any of the applicable emergency landing conditions in subparts C & D of 14 CFR part 25. In addition, glass components that are located such that they are not protected from contact with cabin occupants must not fail due to abusive loading, such as impact from occupants stumbling into, leaning against, sitting on, or performing other intentional or unintentional forceful contact. The effect of design details such as geometric discontinuities or surface finish *e.g.,* embossing, etching, etc., must be assessed.

3. Retention—The glass component, as installed in the airplane, must not come free of its restraint or mounting system in the event of an emergency landing. Both the directional loading and rebound conditions must be assessed. The effect of design details such as geometric discontinuities or surface finish *e.g.,* embossing, etching, etc., must be assessed.

4. Instructions for Continued Airworthiness—The instructions for continued airworthiness must reflect the fastening method used and must ensure the reliability of the methods used (*e.g.,* life limit of adhesives, or clamp connection). Inspection methods and intervals must be defined based upon adhesion data from the manufacturer of the adhesive or actual adhesion test data, if necessary.

Issued in Washington, DC, on date March 23, 2023.

Gregg Nesemeier, III,

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

[FR Doc. 2023–06395 Filed 3–28–23; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2022–1614; Airspace Docket No. 22–ASO–28]

RIN 2120–AA66

Amendment of Class D and E Airspace; Macon, GA

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This action amends Class D airspace, Class E surface airspace, and Class E airspace extending upward from 700 feet above the surface at Middle Georgia Regional Airport, Macon, GA, as a result of the biennial airspace evaluation. This action extends the Class D airspace and Class E surface airspace for the airport and reduces Class E airspace upward from 700 feet above the surface surrounding Middle Georgia Regional and Macon Downtown Airports. The extension of Class D and Class E surface airspace at Middle Georgia Regional Airport will not impact the Class D or Class E surface airspace boundaries of Robins AFB.

DATES: Effective date 0901 UTC, June 15, 2023. The Director of the Federal Register approves this incorporation by reference action under 1 CFR part 51, subject to the annual revision of FAA Order JO 7400.11 and publication of conforming amendments.

ADDRESSES: A copy of the NPRM, all comments received, this final rule, and all background material may be viewed online at *www.regulations.gov* using the FAA Docket number. Electronic retrieval help and guidelines are available on the website. It is available 24 hours each day, 365 days each year.

FAA Order JO 7400.11G, Airspace Designations and Reporting Points, and subsequent amendments can be viewed online at *www.faa.gov/air_traffic/publications/.* You may also contact the Rules and Regulations Group, Office of Policy, Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 20591; telephone: (202) 267–8783.

FOR FURTHER INFORMATION CONTACT: Jennifer Ledford, Operations Support Group, Eastern Service Center, Federal Aviation Administration, 1701 Columbia Avenue, College Park, GA 30337; Telephone: (404) 305–5946.

SUPPLEMENTARY INFORMATION:

Authority for This Rulemaking

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the United States Code. Subtitle I, Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority. This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart I, Section 40103. Under that section, the FAA is charged with prescribing regulations to assign the use of the airspace necessary to ensure the safety of aircraft and the efficient use of airspace. This regulation is within the scope of that authority as it as it amends airspace for Middle Georgia Regional Airport, Macon, GA, to support IFR operations in the area.

History

The FAA published a notice of proposed rulemaking for Docket No. FAA 2022–1614 in the **Federal Register** (87 FR 78885; December 23, 2022), amending Class D airspace, Class E surface airspace, and Class E airspace extending upward from 700 feet above the surface at Middle Georgia Regional Airport, Macon, GA.

Differences From the NPRM

Subsequent to the publication of the Notice of Proposed Rulemaking, the FAA found the Macon Class D and Class E2 language incorrectly described the southwest point of intersection between the Middle Georgia Regional 4.9-mile radius, the Robins AFB 5.5-mile radius, and the Middle Georgia Regional 210 degree bearing. These three points do not converge together and are in excess of 300 feet. There was a similar discrepancy found for the northeast point of intersection. The three references do not converge together on the 65-degree bearing, where it intersects the Robins AFB 5.5-mile radius and the Middle Georgia 4.9-mile radius. This action updates the Macon Class D and Class E2 descriptions with the appropriate language.

Incorporation by Reference

Class D and E airspace designations are published in paragraphs 5000, 6002, and 6005 of FAA Order JO 7400.11, Airspace Designations and Reporting Points, which is incorporated by reference in 14 CFR 71.1 on an annual basis. This document amends the current version of that order, FAA Order JO 7400.11G, dated August 19, 2022, and effective September 15, 2022. FAA Order JO 7400.11G is publicly available as listed in the **ADDRESSES** section of this document. These amendments will be published in the next update to FAA Order JO 7400.11.

FAA Order JO 7400.11G lists Class A, B, C, D, and E airspace areas, air traffic service routes, and reporting points.

The Rule

This action amends 14 CFR part 71 by amending Class D airspace for Middle Georgia Regional Airport by extending the airspace from a 4.1-mile radius to a 4.9-mile radius surrounding the airport. Class E surface airspace for Middle Georgia Regional Airport is amended by extending the airspace from a 4.1-mile radius to a 4.9-mile radius surrounding the airport. The Class E airspace extending upward from 700 feet above the surface is amended to within a 7.4-mile radius of Middle Georgia Regional Airport (reduced from a 7.8-mile radius). The Class E airspace extending upward from 700 feet above the surface is amended to within a 7.5-mile radius of Macon Downtown Airport (reduced from an 8.8-mile radius).

In addition, this action replaces the outdated terms Airport/Facility Directory with the term Chart Supplement and Notice to Airmen with the term Notice to Air Missions in the airspace descriptions.

Regulatory Notices and Analyses

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore: (1) is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. Since this is a routine matter that only affects air traffic procedures and air navigation, it is certified that this rule, when promulgated, does not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

Environmental Review

The FAA has determined that this action qualifies for categorical exclusion under the National Environmental Policy Act in accordance with FAA Order 1050.1F, ''Environmental Impacts: Policies and Procedures,'' paragraph 5–6.5.a. This airspace action is not expected to cause any potentially significant environmental impacts, and no extraordinary circumstances exist that warrant preparation of an environmental assessment.

Lists of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (air).

The Amendment

In consideration of the foregoing, the Federal Aviation Administration amends 14 CFR part 71 as follows:

PART 71—DESIGNATION OF CLASS A, B, C, D, AND E AIRSPACE AREAS; AIR TRAFFIC SERVICE ROUTES; AND REPORTING POINTS

■ 1. The authority citation for 14 CFR part 71 continues to read as follows:

Authority: 49 U.S.C. 106(f), 106(g), 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR, 1959–1963 Comp., p.389.

§ 71.1 [Amended]

■ 2. The incorporation by reference in 14 CFR 71.1 of FAA Order JO 7400.11G, Airspace Designations and Reporting Points, dated August 19, 2022, and effective September 15, 2022, is amended as follows:

Paragraph 5000 Class D Airspace.

* * * * *

ASO GA D Macon, GA [Amended]

Middle Georgia Regional Airport, Macon, GA
(Lat 32°41′34″ N, long 83°38′57″ W)
Robins AFB
(Lat 32°38′25″ N, long 83°35′31″ W)

That airspace extending upward from the surface to and including 2,900 feet MSL within a 4.9-mile radius of Middle Georgia Regional Airport, excluding the portion within the 5.5-mile radius of Robins AFB Airport that lies south of a line connecting the two points of intersection of the 5.5-mile radius circle centered on the Robins AFB Airport and the 4.1-mile radius of Middle Georgia Regional Airport. This Class D airspace area is effective during the specific dates and times established in advance by a Notice to Air Missions. The effective date and time will thereafter be continuously published in the Chart Supplement.

Paragraph 6002 Class E Surface Airspace.

* * * * *

ASO GA E2 Macon, GA [Amended]

Middle Georgia Regional Airport, Macon, GA
(Lat 32°41′34″ N, long 83°38′57″ W)
Robins AFB
(Lat 32°38′25″ N, long 83°35′31″W)

That airspace extending upward from the surface within a 4.9-mile radius of Middle Georgia Regional Airport, excluding the portion within the 5.5-mile radius of Robins AFB Airport that lies south of a line connecting the two points of intersection of the 5.5-mile radius circle centered on the Robins AFB Airport and the 4.1-mile radius of Middle Georgia Regional Airport. This Class D airspace area is effective during the specific dates and times established in advance by a Notice to Air Missions. The effective date and time will thereafter be continuously published in the Chart Supplement.

Paragraph 6005 Class E Airspace Areas Extending Upward From 700 Feet or More Above the Surface of the Earth.

* * * * *

ASO GA E5 Macon, GA [Amended]

Middle Georgia Regional Airport, GA
(Lat 32°41′34″ N, long 83°38′57″ W)
Macon Downtown Airport
(Lat 32°49′18″ N, long 83°33′43″ W)
Robins AFB
(Lat 32°38′25″ N, long 83°35′31″ W)
Perry-Houston County Airport
(Lat 32°30′38″ N, long 83°46′02″ W)

That airspace extending upward from 700 feet above the surface within a 7.4-mile radius of Middle Georgia Regional Airport, and within a 7.5-mile radius of Macon Downtown Airport, a 7-mile radius of Robins AFB, and a 9.8-mile radius of Perry-Houston County Airport.

Issued in College Park, GA, on March 22, 2023.

Andreese C. Davis,

Manager, Airspace & Procedures Team South, Eastern Service Center, Air Traffic Organization.

[FR Doc. 2023–06324 Filed 3–28–23; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF THE INTERIOR

National Indian Gaming Commission

25 CFR Part 537

RIN 3141–AA58

Management Contracts

Correction

In rule document 2022–24135, appearing on pages 68046–68048 in the issue of Monday, November 14, 2022, make the following correction:

■ On page 68048 in the first column, instruction 2 is corrected to read ''Amend § 537.1 by revising paragraphs (a)(3) through (5), and adding paragraph (d) to read as follows:'' and the text of paragraphs (a)(1) and (2) are reinstated, and the corrected text of paragraphs (a)(3) through (5) are set forth below.''

§ 537.1 Applications for approval [Corrected].

(a) * * *

(1) Each person with management responsibility for a management contract;

(2) Each person who is a director of a corporation that is a party to a management contract;

(3) All persons who have 10 percent or more or indirect financial interest in a management contract;

(4) All entities with 10 percent or more financial interest in a management contract; and

(5) Any other person or entity with a direct or indirect financial interest in a management contract otherwise designated by the Commission.

* * * * *

[FR Doc. C1–2022–24135 Filed 3–28–23; 8:45 am]

BILLING CODE 0099–10–D

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[Docket Number USCG–2023–0255]

RIN 1625–AA87

Security Zones; Corpus Christi Ship Channel, Corpus Christi, TX

AGENCY: Coast Guard, DHS.

ACTION: Temporary final rule.

SUMMARY: The Coast Guard is establishing three temporary, 500-yard radius, moving security zones for certain vessels carrying Certain Dangerous Cargoes (CDC) within the Corpus Christi Ship Channel and La Quinta Channel. The temporary security zones are needed to protect the vessels, the CDC cargo, and the surrounding waterway from terrorist acts, sabotage, or other subversive acts, accidents, or other events of a similar nature. Entry of vessels or persons into these zones is prohibited unless specifically authorized by the Captain of the Port Sector Corpus Christi or a designated representative.

DATES: This rule is effective without actual notice from March 29, 2023 until April 1, 2023. For the purposes of enforcement, actual notice will be used from March 23, 2023, until March 29, 2023.

FOR FURTHER INFORMATION CONTACT: If you have questions on this rule, call or email Lieutenant Commander Anthony Garofalo, Sector Corpus Christi Waterways Management Division, U.S. Coast Guard; telephone 361–939–5130, email *Anthony.M.Garofalo@uscg.mil.*

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

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

II. Background Information and Regulatory History

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 these security zones by March 23, 2023 to ensure security of these vessels and lack sufficient time to provide a reasonable comment period and then consider those comments before issuing the 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 contrary to the public interest because immediate action is needed to provide for the security of these vessels.

III. Legal Authority and Need for Rule

The Coast Guard is issuing this rule under authority in 46 U.S.C. 70034 (previously 33 U.S.C. 1231). The Captain of the Port Sector Corpus Christi (COTP) has determined that potential hazards associated with the transit of the Motor Vessel (M/V) VEGA SUN, M/V CLEAN CAJUN, M/V GASLOG GEORGETOWN, M/V GAS PRIDE, and M/V SOLARIS, when loaded, will be a security concern within a 500-yard radius of each vessel. This rule is needed to provide for the safety and security the vessels, their cargo, and surrounding waterway from terrorist acts, sabotage or other subversive acts, accidents, or other events of a similar nature while they are transiting within Corpus Christi, TX, from March 23, 2023 through April 1, 2023.

IV. Discussion of the Rule

The Coast Guard is establishing four 500-yard radius temporary moving security zones around M/V VEGA SUN, M/V CLEAN CAJUN, M/V GASLOG GEORGETOWN, M/V GAS PRIDE, and M/V SOLARIS. The zones for the vessels will be enforced from March 23, 2023, through April 1, 2023. The duration of the zones are intended to protect the vessels and cargo and surrounding waterway from terrorist acts, sabotage or other subversive acts, accidents, or other events of a similar nature. No vessel or person will be permitted to enter the security zones without obtaining permission from the COTP or a designated representative.

Entry into these security zones is prohibited unless authorized by the COTP or a designated representative. A designated representative is a commissioned, warrant, or petty officer of the U.S. Coast Guard (USCG) assigned to units under the operational control of USCG Sector Corpus Christi. Persons or vessels desiring to enter or pass through each zone must request permission from the COTP or a designated representative on VHF–FM channel 16 or by telephone at 361–939–0450. If permission is granted, all persons and vessels shall comply with the instructions of the COTP or designated representative. The COTP or a designated representative will inform the public through Broadcast Notices to Mariners (BNMs), Local Notices to Mariners (LNMs), and/or Marine Safety Information Bulletins (MSIBs) as appropriate for the enforcement times and dates for each security zone.

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, duration, and location of the security zones. This rule will impact a small, designated area of 500-yards around the moving vessels in the Corpus Christi Ship Channel and La Quinta Channel as the vessels transit the channel over a nine day period. Moreover, the rule allows vessels to seek permission to enter the zones.

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 temporary security zones 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 contact 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. If you believe this rule has implications for federalism or Indian tribes, please contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section above.

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 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 moving security zones lasting for the duration of time that the M/V VEGA SUN, M/V CLEAN CAJUN, M/V GASLOG GEORGETOWN, M/V GAS PRIDE, and M/V SOLARIS are within the Corpus Christi Ship Channel and La Quinta Channel while loaded with cargo. It will prohibit entry within a 500-yard radius of M/V VEGA SUN, M/V CLEAN CAJUN, M/V GASLOG GEORGETOWN, M/V GAS PRIDE, and M/V SOLARIS while the vessels are transiting loaded within Corpus Christi Ship Channel and La Quinta Channel. It is categorically excluded from further review under L60 in 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 contact 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.T08–0255 to read as follows:

§ 165.T08–0255 Security Zones; Corpus Christi Ship Channel. Corpus Christi, TX.

(a) *Location.* The following area are moving security zones: All navigable waters encompassing a 500-yard radius around the M/V VEGA SUN, M/V CLEAN CAJUN, M/V GASLOG GEORGETOWN, M/V GAS PRIDE, and M/V SOLARIS while the vessels are in the Corpus Christi Ship Channel and La Quinta Channel.

(b) *Enforcement period.* This section will be enforced from March 23, 2023 through April 1, 2023.

(c) *Regulations.* (1) The general regulations in § 165.33 of this part apply. Entry into the zones is prohibited unless authorized by the Captain of the Port Sector Corpus Christi (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 USCG Sector Corpus Christi.

(2) Persons or vessels desiring to enter or pass through the zones must request permission from the COTP Sector Corpus Christi on VHF–FM channel 16 or by telephone at 361–939–0450.

(3) If permission is granted, all persons and vessels shall comply with the instructions of the COTP or designated representative.

(d) *Information broadcasts.* The COTP or a designated representative will inform the public through Broadcast Notices to Mariners (BNMs), Local Notices to Mariners (LNMs), and/or Marine Safety Information Bulletins (MSIBs) as appropriate of the enforcement times and dates for these security zones.

Dated: March 22, 2023.

J.B. Gunning,

Captain, U.S. Coast Guard, Captain of the Port Sector Corpus Christi.

[FR Doc. 2023–06503 Filed 3–28–23; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[Docket No. USCG–2023–0082]

Safety Zone; French Quarter Festival Fireworks Display, New Orleans LA

AGENCY: Coast Guard, DHS.

ACTION: Notification of enforcement of regulation.

SUMMARY: The Coast Guard will enforce a safety zone for the French Quarter Festival fireworks display from 7:30 to 8:45 p.m. on April 13, 2023. The safety zone will be enforced for all navigable waters of the Lower Mississippi River, New Orleans, LA from Mile Marker (MM) 94 to MM 95. This action is needed to provide for the safety of life on the navigable waterways during this event. In the event of inclement weather, the safety zone will be enforced from 7:30 to 8:45 p.m. on April 14, 2023. During the enforcement period, entry into this zone is prohibited to all vessels and persons except vessels authorized by the Captain of the Port New Orleans (COTP) or designated representative.

DATES: The regulations in 33 CFR 165.845 will be enforced from 7:30 to 8:45 p.m. on April 13, 2023. In the event of inclement weather, the safety zone will be enforced from 7:30 to 8:45 p.m. on April 14, 2023.

FOR FURTHER INFORMATION CONTACT: If you have questions about this notification of enforcement, call or email Lieutenant Commander William Stewart, Sector New Orleans, U.S. Coast Guard; telephone (504) 365–2246, email *William.A.Stewart@uscg.mil.*

SUPPLEMENTARY INFORMATION: The Coast Guard will enforce a safety zone for the French Quarter Festival fireworks display from 7:30 to 8:45 p.m. on April

13, 2023. The safety zone will be enforced for all navigable waters of the Lower Mississippi River, New Orleans, LA from MM 94 to MM 95. In the event of inclement weather, the safety zone will be enforced from 7:30 to 8:45 p.m. on April 14, 2023. During the enforcement period, as reflected in § 165.845 paragraphs (a) through (d), entry into this zone is prohibited to all vessels and persons except vessels authorized by the COTP or designated representative. A designated representative means any Coast Guard commissioned, warrant, or petty officer of the U.S. Coast Guard assigned to units under the operational control of Sector New Orleans. Persons and vessels requiring entry into this safety zone must request permission from the COTP or a designated representative. They may be contacted on VHF–FM Channel 16 or 67 or by telephone at (504) 365–2545. Persons and vessels permitted to enter this safety zone must transit at their slowest safe speed and comply with all lawful directions issued by the COTP or the designated representative.

In addition to this notification of enforcement in the **Federal Register**, the Coast Guard plans to provide notification of this enforcement period via Marine Safety Information Bulletin and Broadcast Notice to Mariners.

Dated: March 22, 2023.

K.K. Denning,

Captain, U.S. Coast Guard, Captain of the Port Sector New Orleans.

[FR Doc. 2023–06460 Filed 3–28–23; 8:45 am]

BILLING CODE 9110–04–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 51, 60, and 63

[EPA–HQ–OAR–2020–0556; FRL–8335–02–OAR]

RIN 2060–AV35

Testing Provisions for Air Emission Sources

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates corrections and updates to regulations for source testing of emissions under various rules. This final rule includes corrections to typographical and technical errors, updates to outdated procedures, and revisions to add clarity and consistency with other monitoring requirements. The revisions will improve the quality of data but will not impose new substantive requirements on source owners or operators.

DATES: This rule is effective on May 30, 2023. The incorporation by reference of certain material listed in the rule is approved by the Director of the Federal Register on May 30, 2023. The incorporation by reference of certain other material listed in the rule was approved by the Director of the Federal Register as of March 18, 2008, April 16, 2012, and May 15, 2015.

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA–HQ–OAR–2020–0556. All documents in the docket are listed on the *www.regulations.gov* website. Although listed in the index, some information is not publicly available, *e.g.,* confidential business information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy. Publicly available docket materials are available electronically through *www.regulations.gov*.

FOR FURTHER INFORMATION CONTACT: Mrs. Lula H. Melton, Office of Air Quality Planning and Standards, Air Quality Assessment Division (E143–02), Environmental Protection Agency, Research Triangle Park, NC 27711; telephone number: (919) 541–2910; fax number: (919) 541–0516; email address: *melton.lula@epa.gov*.

SUPPLEMENTARY INFORMATION: The supplementary information in this preamble is organized as follows:

I. General Information

A. Does this action apply to me?

The amendments promulgated in this final rule apply to industries that are subject to the current provisions of 40 CFR parts 51, 60, and 63. We did not list all the specific affected industries or their North American Industry Classification System (NAICS) codes herein since there are many affected

sources in numerous NAICS categories. If you have any questions regarding the applicability of this action to a particular entity, consult either the air permitting authority for the entity or your EPA Regional representative as listed in 40 CFR 63.13.

B. What action is the agency taking?

We are promulgating corrections and revisions to source test methods, performance specifications (PS), and associated regulations. The revisions correct typographical and technical errors, provide updates to testing procedures, and add clarity and consistency among monitoring requirements.

C. Judicial Review

Under section 307(b)(1) of the Clean Air Act (CAA), judicial review of this final rule is available by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit by May 30, 2023. Under section 307(d)(7)(B) of the CAA, only an objection to this final rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the CAA, the requirements that are the subject of this final rule may not be challenged later in civil or criminal proceedings brought by the EPA to enforce these requirements.

II. Background

The EPA catalogs errors and corrections, as well as necessary revisions to test methods, performance specifications, and associated regulations in 40 CFR parts 51, 60, and 63 and periodically updates and revises these provisions. The most recent updates and revisions were proposed on April 26, 2022 (87 FR 24488). The public comment period for the present proposed revisions ended June 27, 2022, and 11 comment letters were received from the public. This final rule was developed based on public comments that the agency received on the proposed rule.

III. Incorporation by Reference

The EPA is incorporating by reference two ASTM International (ASTM) standards. Specifically, the EPA has incorporated ASTM D6216–20, which covers the procedure for certifying continuous opacity monitors and includes design and performance specifications, test procedures, and quality assurance (QA) requirements to ensure that continuous opacity monitors meet minimum design and calibration requirements necessary for accurate opacity monitoring measurements in regulatory environmental opacity monitoring applications subject to 10 percent or higher opacity standards. The EPA also updated the incorporation by reference for ASTM D6784, a test method for elemental, oxidized, particle-bound, and total mercury in emissions from stationary sources, from the 2002 version to the 2016 version. This update applies to incorporations by reference in 40 CFR part 60, appendix B, Performance Specification 12A for continuous monitoring of mercury emissions. The EPA updated the incorporations by reference in 40 CFR part 63 for use of ASTM D6784 under table 5 and appendix A of Subpart UUUUU, for mercury emissions measurement and monitoring. Both the ASTM D6216–20 and ASTM D6784–16 standards were developed and adopted by the ASTM International. The ASTM standards may be obtained from *www.astm.org* or from the ASTM at 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428–2959.

The EPA also is incorporating by reference the Standard Methods Committee Method 5210 Biochemical Oxygen Demand (BOD) from ''Standard Methods for the Examination of Waste and Wastewater.'' This standard is acceptable as an alternative to method 405.1 and is available from the Standards Method Committee at *www.standardmethods.org* or by telephone at (844) 232–3707.

The EPA also made specific modifications to requirements in an existing incorporation by reference, the ASTM E2515–11 test method. The stipulations modify the post-test leak check procedures as well as add procedures for performing leak checks during a sampling run.

The following standards are already currently incorporated in the location where they appear in the rule: ANSI/ASME PTC 19.10–1981, ASTM–D6348–03. ASTM–D6348–03(R2010), ASTM–D6522–00 (2005).

IV. Summary of Amendments

A. Method 201A of Appendix M of Part 51

In method 201A, the erroneous equation 25 in section 12.5 is corrected.

B. General Provisions (Subpart A) of Part 60

In the General Provisions of part 60, § 60.17(h) is revised to add ASTM D6216–20 and D6784–16 to the list of incorporations by reference and to re-number the remaining consensus standards that are incorporated by reference in alpha-numeric order.

C. Standards of Performance for New Residential Wood Heaters (Subpart AAA) of Part 60

Subpart AAA is amended to add stipulations for use of the ASTM E2515–11 test method. The stipulations modify the post-test leak check procedures as well as add procedures for performing leak checks during a sampling run. The stipulations to ASTM E2515–11 are necessary as we have learned that the quality assurance/quality control (QA/QC) requirements for leak tests required by ASTM E2515–11, section 9.6.5.1 are not sufficient to provide assurance of the sampling system integrity. Additionally, the language of ASTM E2515–11, section 9.6.5.1 currently allows for averaging the particulate matter (PM) results from a non-leaking sampling system with those from a leaking sampling system, which effectively reduces reported PM emissions by as much as half, rendering the test method inappropriate for compliance determination.

We revised the language in § 60.534(c) and developed new language to replace ASTM E2515–11, section 9.6.5.1 by adding § 60.534(c)(1), which specifies appropriate post-test leak check procedures and in § 60.534(c)(2) by adding procedures for performing leak checks during a sampling run. These modifications bring appropriate QA/QC requirements to PM measurements required by the rule and eliminate opportunity for emissions test results to be considered valid when a leaking sampling system allows dilution of the PM sample(s). This language was amended slightly based on comments received to further clarify that sample volume collected during the process of conducting leak checks during a test run is not to be included in the overall sampling volume as it would dilute the collected sample volume were it treated in that manner.

In § 60.534(d), the first hour PM emissions measurements are to be conducted using a separate ASTM E2515–11 sampling train operated concurrently with the paired ASTM E2515–11 sampling trains used in compliance PM sampling. In this manner, the first hour PM emissions will be collected appropriately, and the compliance test measurements will not be impacted by a sampling pause for filter replacement at the 1-hour mark.

The regulatory language in § 60.539b(b) is revised to include General Provisions that were added to § 60.8(f)(2) (81 FR 59801, August 30, 2016) and were inadvertently exempted from inclusion in subpart AAA as that rule, as promulgated in 2015, exempted

§ 60.8(f) in its entirety. The exemption promulgated in subpart AAA at § 60.539b(b) was intended to exempt those affected sources from § 60.8(f), which, at the time, consisted of what is now currently § 60.8(f)(1) and is specific to compliance testing results consisting of the arithmetic mean of three replicate tests. These modifications will ensure that emissions test reporting includes all data necessary to assess and assure the quality of the reported emissions data and appropriately describes and identifies the specific unit covered by the emissions test report. Since compliance tests in this category consist of a single test, the original regulatory exemption to the General Provisions of § 60.8(f)(1) is retained.

D. Standards of Performance for New Residential Wood Heaters, New Residential Hydronic Heaters, and Forced-Air Furnaces (Subpart QQQQ) of Part 60

The erroneous PM emission limits in g/MJ in § 60.5474(b)(2), (3) and (6) are corrected.

In addition, subpart QQQQ is amended to add stipulations for use of the ASTM E2515–11 test method. The stipulations modify the post-test leak check procedures as well as add procedures for performing leak checks during a sampling run. The stipulations to ASTM E2515–11 are necessary as we have learned that the QA/QC requirements for leak tests required by ASTM E2515–11, section 9.6.5.1 are not sufficient to provide assurance of the sampling system integrity. Additionally, the language of ASTM E2515–11, section 9.6.5.1 currently allows for averaging the PM results from a non-leaking sampling system with those from a leaking sampling system, which effectively reduces reported PM emissions by as much as half, rendering the test method inappropriate for compliance determination. The language in § 60.5476(c)(5) and (6) is removed and the paragraphs are reserved.

We revised the language in § 60.5476(f) and developed new language to replace ASTM E2515–11, section 9.6.5.1 by adding § 60.5476(f)(1), which specifies appropriate post-test leak check procedures and in § 60.5476(f)(2) by adding procedures for performing leak checks during a sampling run. These modifications bring appropriate QA/QC requirements to PM measurements required by the rule and eliminate opportunity for emissions test results to be considered valid when a leaking sampling system allows dilution of the PM sample(s). This language was amended slightly based on comments received to further clarify that sample volume collected during the process of conducting leak checks during a test run should not be included in the overall sampling volume as it would dilute the collected sample volume were it treated in that manner.

In § 60.5476(f), we are also requiring that first hour PM emissions measurements be conducted using a separate ASTM E2515–11 sampling train operated concurrently with the paired ASTM E2515–11 sampling trains used in compliance PM sampling. In this manner, the first hour PM emissions will be collected appropriately, and the compliance test measurements will not be impacted by a sampling pause for filter replacement at the one-hour mark. In § 60.5476(f), we incorporated language about filter type and size acceptance currently in § 60.5476(c)(5). Additionally, we removed language relating to EN 303–5 currently found in § 60.5476(f).

The regulatory language in § 60.5483(b) is revised to include General Provisions that were added to § 60.8(f)(2) (81 FR 59801, August 30, 2016) and were inadvertently exempted from subpart QQQQ as that rule, as promulgated in 2015, exempted § 60.8(f) in its entirety. The exemption promulgated in subpart QQQQ at § 60.5483(b) was intended for those affected sources subject to § 60.8(f), which, at the time, consisted of what is currently § 60.8(f)(1) and is specific to compliance testing results consisting of the arithmetic mean of three replicate tests. These modifications ensure that emissions test reporting includes all data necessary to assess and assure the quality of the reported emissions data and appropriately describes and identifies the specific unit covered by the emissions test report. Since compliance tests in this category consist of a single test, the original regulatory exemption to the General Provisions of § 60.8(f)(1) is retained.

In subpart QQQQ, in method 28WHH, in section 13.8, the erroneous CO calculation instructions for equation 23 are corrected to include the summation of CO emissions over four test categories instead of three.

E. Method 1 of Appendix A–1 of Part 60

In method 1, the heading in section 11.5.1 is moved to 11.5, and the word ''procedure'' is moved to the first sentence in section 11.5.1 for clarity. Section 11.5.2 is revised to clearly specify the number of traverse points that must be used for sampling and velocity measurements once a directional flow-sensing probe procedure has been used to demonstrate that an alternative measurement site is acceptable. The last sentence of section 11.5.2, which appears unclear as to what ''same traverse point number and locations'' it is referring, is revised to instead specify the ''same minimum of 40 traverse points for circular ducts and 42 points for rectangular ducts'' that are used in the alternative measurement procedure of section 11.5.3.

Also, table 1–2 is revised to correct the erroneous requirement that calls for 99.9 percent of stack diameter from the inside wall to the traverse point to 98.9 percent.

F. Method 4 of Appendix A–3 of Part 60

In method 4, table 4–3 is formatted correctly.

G. Method 7 of Appendix A–4 of Part 60

In method 7, section 10.1.3 is revised to change the word ''should'' to ''shall'' in the last sentence because the difference between the calculated concentration values and the actual concentrations are required to be less than 7 percent for all standards.

H. Method 19 of Appendix A–7 of Part 60

In method 19, the erroneous equation 19–5 is corrected.

I. Method 25 of Appendix A–7 of Part 60

In method 25, a record and report section (section 12.9) was added to confirm that the quality control (QC) is successfully performed. Also, the erroneous figure 25–6 is corrected.

J. Method 25C of Appendix A–7 of Part 60

In method 25C, in response to a comment, the first sentence in section 9.1 is corrected to read, ''If the 3-year average annual rainfall is greater than 20 inches, verify that landfill gas sample contains less than 20 percent N_2 or 5 percent O_2.'' Also, the nomenclature in section 12.1 for C_{N2} and C_{mN2} is revised to provide clarity. More specifically, C_{N2} is changed from ''N_2 concentration in the diluted sample gas'' to ''N_2 concentration in the landfill gas sample,'' and the C_{mN2} is changed from ''Measured N_2 concentration, fraction in landfill gas'' to ''Measured N_2 concentration, diluted landfill gas sample.''

K. Method 26 of Appendix A–8 of Part 60

In method 26, erroneous equations 26–4 and 26–5 in sections 12.4 and 12.5, respectively, are revised to be consistent with the nomenclature in section 12.1.

L. Performance Specification 1 of Appendix B of Part 60

In Performance Specification 1, references to ASTM D6216–12 (in sections 2.1, 3.1, 6.1, 8.1(1), (2)(iii), and (3)(ii), 8.2(1) through (3), 9.0, 12.1, 13.1, 13.2, and 16.0, reference 8) are replaced with ASTM D6216–20. Note: If the initial certification of the continuous opacity monitoring system (COMS) has already occurred using D6216–98, D6216–03, D6216–07, or D6216–12, it will not be necessary to recertify using D6216–20.

Also, in Performance Specification 1, section 8.1(2)(iii) is revised by removing the next to the last sentence, which reads, ''The opacities of the two locations or paths may be measured at different times but must represent the same process operating conditions,'' because the statement is confusing and unclear; furthermore, it is unlikely that one would achieve the same conditions at two different times.

M. Performance Specification 2 of Appendix B of Part 60

In Performance Specification 2, in section 8.3.3, a sentence is added to clarify that during a calibration, the reference gas is to be introduced into the sampling system prior to any sample conditioning or filtration equipment and must pass through as much of the probe as is practical. In section 12.5, minor revisions are made to clarify that relative accuracy (RA) test results are expressed as a percent of emission rate or concentration (units of the applicable standard) and the definition of the average reference method (RM) value for Equation 2–6.

N. Performance Specification 4B of Appendix B of Part 60

The entire Performance Specification 4B is updated to the Environmental Monitoring Management Council (EMMC) methods format used for all other performance specifications. In response to comment, some of the references to other sections are replaced with text.

O. Performance Specification 6 of Appendix B of Part 60

In Performance Specification 6, section 13.2 is revised to specifically state the relative accuracy criteria including significant figures. On October 7, 2020 (85 FR 63394), we revised section 13.2 of Performance Specification 6 to make the relative accuracy calculations and criteria consistent with Performance Specification 2 and offer an alternate calculation and criterion for low emission concentration/rate situations; however, we neglected to specifically cite the alternate relative accuracy criterion from Performance Specification 2 for low emission sources and to ensure consistency with Performance Specification 2 with regard to significant figures in the relative accuracy criteria. In response to comment, we are adding ''you may elect to'' to the last sentence in section 13.2 to clarify that the 10% RA is an option as opposed to a requirement.

P. Performance Specification 12A of Appendix B of Part 60

We are revising the references (in sections 8.4.2, 8.4.4, 8.4.5, 8.4.6.1, and 17.5 and the footnote to Figure 12A–3) to ASTM D6784, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), to update them from the 2002 version to the latest version, which was authorized in 2016.

The capabilities of mercury CEMS have improved since initial deployment to support regulations over a decade ago. Therefore, we are revising section 13.3 to modify the alternative relative accuracy criterion such that: (1) it applies only at mercury concentrations less than 2.5 μg/scm and (2) the difference between the average reference method and CEMS values added to the confidence coefficient is now 0.5 μg/scm. This revised criterion is consistent with revisions that we made to the mercury monitoring requirements in 40 CFR part 63, subpart UUUUU (81 FR 20172, April 6, 2016).

Q. Performance Specification 16 of Appendix B of Part 60

In Performance Specification 16, several corrections and modifications are made to clarify the intent of the requirements. In section 1.1, the language is revised to make it clear that if a PEMS (predictive emission monitoring system) contains a diluent component, then the diluent component must be tested as well. Also, in section 1.1, the language referring to PS–17 is removed because PS–17 was not promulgated.

In sections 3.11 and 3.12, language is added to define commonly used acronyms, and in section 3.12, the language is corrected to indicate that the relative accuracy test audit (RATA) is to be conducted as specified in section 8.2.

In section 9.1, the QA/QC Summary chart is corrected to reflect the language found in section 2.2, which indicates that the relative accuracy audit (RAA) is required on all PEMS and not just those classified as compliance PEMS. The QA/QC Summary Chart is also modified to align the criteria for a RAA with that found in section 13.5.

In section 9.4, we proposed to correct the language stating a RATA is to be conducted at the normal operating level to indicate the RATA is to be conducted as specified in section 8.2. Also in section 9.4, we proposed to remove the statement that the statistical tests in section 8.3 are not required for the yearly RATA. However, based on public comment, we are not making any revisions to section 9.4 at this time.

In section 12.3.2, we proposed to remove the alternative criteria language because it does not apply to F-factor determinations. However, based on public comment, we have decided not to make changes to section 12.3.2 at this time.

In sections 13.1 and 13.5, the language is modified to add the corresponding alternative criteria in units of lb/mmBtu. Although, we did not propose a change in the criteria for applying the 2 ppm difference in the proposed rule, we agree with a public comment that the 20 ppm criteria in section 13.5 should be the same as the 10 ppm criteria in section 13.1, so section 13.5 is revised to reflect this.

R. Procedure 1 of Appendix F of Part 60

In Procedure 1, in section 4.1, a sentence is added to clarify that during a calibration, the reference gas is to be introduced into the sampling system prior to any sample conditioning or filtration equipment and must pass through as much of the probe as is practical. Section 5.2.3(2) is modified to refine the alternative cylinder gas audit (CGA) criteria in response to the use of analyzers with lower span values. In section 6.2, to provide clarity and clear up any confusion, the language referring to the relevant performance specification is removed, and the language referring to the use of equation 1–1 is inserted.

S. Procedure 5 of Appendix F of Part 60

Regulated entities have pointed out that we did not include criteria for the system integrity check required in Procedure 5. In section 2.5, we clarified that ongoing daily calibration of the Hg CEMS must be conducted using elemental mercury reference gas. This is consistent with revisions that we made to the Hg monitoring requirements in 40 CFR part 63, subpart UUUUU (81 FR 20172, April 6, 2016). We revised the title of section 4.0 and added section 4.4 to explain more explicitly the procedure for conducting the system integrity check as well as to provide the criteria for passing the check. In response to

comment, we changed ''calendar'' days to ''operating'' days in the first sentence in section 4.4 to provide harmonization with the Mercury Air Toxics Standards (MATS) Rule (40 CFR part 63, subpart UUUUU). Also, in response to comment, we revised the acceptance criteria for the system integrity check in section 4.4 to better comport with the MATS Rule. The acceptance criteria for the system integrity check now reads ''The absolute value of the difference between the Hg CEMS output response and the reference gas must be less than or equal to 10.0 percent of the reference gas value or 0.8 µg/scm.''

In section 5.1.3, to add clarity, we inserted language referring to equation 1–1 of Procedure 1 for calculating relative accuracy.

T. General Provisions (Subpart A) of Part 63

In the General Provisions of part 63, § 63.14 is revised to: (1) add ASTM D6784–16 to paragraph (h) and (2) add ''Standard Methods for the Examination of Waste and Wastewater'' method 5210 to paragraph (u).

U. National Emission Standards for Hazardous Air Pollutants From the Pulp and Paper Industry (Subpart S) of Part 63

In subpart S, the existing reference in 40 CFR 63.457(c)(4) to method 405.1 of part 136 of chapter 40 for the measurement of biochemical oxygen demand (BOD) is no longer valid, as method 405.1 was withdrawn in 2007. It was replaced with Biochemical Oxygen Demand Standard Methods 5210 B (72 FR 11199, March 12, 2007), which has been previously approved in test plans for measuring BOD to demonstrate compliance with the requirements of subpart S. In § 63.457(c)(4), the reference to method 405.1 is replaced with reference to method 5210B. The parent method, method 5210, which includes method 5210B, is also incorporated by reference in 40 CFR 63.14.

V. National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors (Subpart EEE) of Part 63

In the appendix to subpart EEE, the erroneous language regarding an Interference Response Test in the introductory paragraph of section 5 is removed, and section 5.3 in its entirety is removed.

W. National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating (Subpart JJJJ) of Part 63

In 2009, revisions were made to § 63.3360(e)(1)(viii) to clarify that the results of method 25 or method 25A were being used to determine ''total organic volatile matter'' (85 FR 41276). At the time, the use of the terminology ''total gaseous non-methane organic volatile organic matter'' in § 63.3360(e)(1)(vi) was overlooked. We are revising § 63.3360(e)(1)(vi) by removing the term ''non-methane'' to be consistent with § 63.3360(e)(1)(viii).

X. National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (Subpart ZZZZ) of Part 63

We have received multiple inquiries regarding the requirements in table 4 of Subpart ZZZZ that are used to measure the exhaust gas moisture when measuring the concentration of carbon monoxide (CO), formaldehyde, or total hydrocarbon (THC) to demonstrate compliance with the rule. It was first pointed out that it is not always necessary to measure that exhaust gas moisture when measuring CO. We are adding language to all three sections of table 4 stating that that the moisture measurement is only necessary when needed to correct the CO, formaldehyde, THC and/or O_2 measurements to a dry basis.

Y. National Emission Standards for Hazardous Air Pollutants: Engine Test Cells/Stands Residual Risk and Technology Review (Subpart PPPPP) of Part 63

In subpart PPPPP, the existing erroneous statement in § 63.9306(d)(2)(iv) is corrected to read, ''Using a pressure sensor with measurement sensitivity of 0.002 inches water, check gauge calibration quarterly and transducer calibration monthly.'' Also, in subpart PPPPP, the existing erroneous statement in § 63.9322(a)(1) is corrected to read, ''The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a permanent total enclosure (PE) and directs all the exhaust gases from the enclosure to an add-on control device.''

Z. National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units (Subpart UUUUU) of Part 63

We are revising the references in sections 4.1.1.5 and 4.1.1.5.1 in subpart UUUUU, appendix A, to ASTM Method D6784, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), to update them from the 2002 version to the latest version, which was authorized in 2016. In table 5, we are adding ASTM Method D6784–16 as a mercury testing option as it was inadvertently left out previously.

AA. Method 315 of Appendix A of Part 63

Section 16.2 is mislabeled as section 6.2 and is corrected.

BB. Method 323 of Appendix A of Part 63

In method 323, sections 10.1 and 10.3 are revised to require best laboratory practices. The nomenclature in section 12.1 is revised to include ''b,'' which is the intercept of the calibration curve at zero concentration and revise K_c. These additions are necessary because equation 323–5 in section 12.6 is revised to reflect changes in calibration procedures for calculating the mass of formaldehyde.

V. Public Comments on the Proposed Rule

Eleven comment letters were received from the public on the proposed rule. The public comments and the agency's responses are summarized in the Response to Comments document located in the docket for this rule. See the **ADDRESSES** section of this preamble.

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 not a significant regulatory action and was, therefore, not submitted to the Office of Management and Budget (OMB) for review.

B. Paperwork Reduction Act (PRA)

This action does not impose an information collection burden under the PRA. The amendments to test methods, performance specifications, and testing regulations only make corrections, updates, and clarifications to existing testing methodology.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities

under the RFA. This action will not impose any requirements on small entities. This final rule will not impose emission measurement requirements beyond those specified in the current regulations, nor does it change any emission standard.

D. Unfunded Mandates Reform Act (UMRA)

This 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 action imposes no enforceable duty on any state, local, or tribal governments or the private sector.

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 action does not have tribal implications, as specified in Executive Order 13175. This action corrects and updates existing testing regulations. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the 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 action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution or Use

This 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 and 1 CFR Part 51

This action involves technical standards. The EPA used ASTM D6216–20 for continuous opacity monitors in Performance Specification 1. The ASTM D6216–20 standard covers the procedure for certifying continuous opacity monitors and includes design and performance specifications, test procedures, and QA requirements to ensure that continuous opacity monitors meet minimum design and calibration requirements, necessary in part, for accurate opacity monitoring measurements in regulatory environmental opacity monitoring applications subject to 10 percent or higher opacity standards. The EPA also updated the version of ASTM D6784, a test method for elemental, oxidized, particle-bound, and total mercury in emissions from stationary sources, from the 2002 to 2016 version in the references contained in 40 CFR part 60, appendix B, Performance Specification 12A, for continuous monitoring of mercury emissions. The EPA updated the version of ASTM D6784 referenced in table 5 and appendix A of subpart UUUUU in 40 CFR part 63, for mercury emissions measurement and monitoring.

The EPA also used the Standard Methods Committee Method 5210 Biochemical Oxygen Demand (BOD) from ''Standard Methods for the Examination of Water and Wastewater.'' Section B of this standard, 5-day BOD, is acceptable as an alternative to method 405.1.

The EPA added language to correct a portion of the ASTM E2515–11 test method. The stipulations modified the post-test leak check procedures as well as added procedures for performing leak checks during a sampling run. The stipulations to ASTM E2515–11 are necessary as we have learned that the quality assurance/quality control (QA/QC) requirements for leak tests required by ASTM E2515–11, section 9.6.5.1 are not sufficient to provide assurance of the sampling system integrity. Additionally, the language of ASTM E2515–11, section 9.6.5.1 currently allows for averaging the PM results from a non-leaking sampling system with those from a leaking sampling system which effectively reduces reported PM emissions by as much as half, rendering the test method inappropriate for compliance determination.

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.

The EPA believes that this type of action does not concern human health or environmental conditions and, therefore, cannot be evaluated with respect to potentially disproportionate and adverse effects on people of color, low-income populations and/or indigenous peoples because it does not establish an environmental health or safety standard. This action corrects, updates, and provides clarity to existing testing regulations.

K. Congressional Review Act (CRA)

This action is subject to the CRA, and the EPA will submit a rule report to each house of the Congress and to the Comptroller General of the United States. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

List of Subjects

40 CFR Part 51

Environmental protection, Air pollution control, Performance specifications, Test methods and procedures.

40 CFR Part 60

Environmental protection, Air pollution control, Incorporation by reference, Performance specifications, Test methods and procedures.

40 CFR Part 63

Environmental protection, Air pollution control, Incorporation by reference, Performance specifications, Test methods and procedures.

Michael S. Regan,

Administrator.

For the reasons set forth in the preamble, the Environmental Protection Agency amends title 40, chapter I of the Code of Federal Regulations as follows:

PART 51—REQUIREMENTS FOR PREPARATION, ADOPTION, AND SUBMITTAL OF IMPLEMENTATION PLANS

■ 1. The authority citation for part 51 continues to read as follows:

Authority: 23 U.S.C. 101; 42 U.S.C. 7401–7671q.

■ 2. Amend appendix M to part 51 in section 12.5 of method 201A by revising equation 25 to read as follows:

Appendix M to Part 51—Recommended Test Methods for State Implementation Plans

* * * * *

Method 201A—Determination of PM_{10} and $PM_{2.5}$ Emissions From Stationary Sources (Constant Sampling Rate Procedure)

* * * * *

12.0 Calculations and Data Analysis

* * * * *

12.5 * * *

$$\Delta p_s = \Delta p_m \left[\frac{C_p'}{C_p}\right]^2 \quad \text{(Eq. 25)}$$

* * * * *

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

■ 3. The authority citation of part 60 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart A—General Provisions

■ 4. Amend § 60.17 by:

■ a. Revising paragraphs (h)(182) and (195);

■ b. Redesignating paragraphs (h)(196) through (217) as paragraphs (h)(197) through (218) respectively; and

■ c. Adding new paragraph (h)(196).

The revisions and addition read as follows:

§ 60.17 Incorporations by reference.

* * * * *

(h) * * *

(182) ASTM D6216–20, Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications, approved September 1, 2020; IBR approved for appendix B to part 60.

* * * * *

(195) ASTM D6784–02 (Reapproved 2008), Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), approved April 1, 2008; IBR approved for § 60.56c(b).

(196) ASTM D6784–16, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), approved March 1, 2016; IBR approved for appendix B to part 60.

* * * * *

Subpart AAA—Standards of Performance for New Residential Wood Heaters

■ 5. Amend § 60.534 by revising paragraphs (c) and (d) to read as follows:

§ 60.534 What test methods and procedures must I use to determine compliance with the standards and requirements for certification?

* * * * *

(c) For affected wood heaters subject to the 2015 and 2020 particulate matter emission standards specified in § 60.532(a) through (c), particulate matter emission concentrations must be measured with ASTM E2515–11 (IBR, see § 60.17) with the following exceptions: eliminate section 9.6.5.1 of ASTM E2515–11 and perform the post-test leak checks as described in paragraph (c)(1) of this section. Additionally, if a component change of either sampling train is needed during sampling, then perform the leak check specified in paragraph (c)(2) of this section. Four-inch filters and Teflon membrane filters or Teflon-coated glass fiber filters may be used in ASTM E2515–11.

(1) *Post-test leak check.* A leak check of each sampling train is mandatory at the conclusion of each sampling run before sample recovery. The leak check must be performed in accordance with the procedures of ASTM E2515–11, section 9.6.4.1 (IBR, see § 60.17), except that it must be conducted at a vacuum equal to or greater than the maximum value reached during the sampling run. If the leakage rate is found to be no greater than 0.0003 m^3/min (0.01 cfm) or 4% of the average sampling rate (whichever is less), the leak check results are acceptable. If a higher leakage rate is obtained, the sampling run is invalid.

(2) *Leak checks during sample run.* If, during a sampling run, a component (*e.g.,* filter assembly) change becomes necessary, a leak check must be conducted immediately before the change is made. Record the sample volume before and after the leak test. The sample volume collected during any leak checks must not be included in the total sample volume for the test run. The leak check must be done according to the procedure outlined in ASTM E2515–11, section 9.6.4.1 (IBR, see § 60.17), except that it must be done at a vacuum equal to or greater than the maximum value recorded up to that point in the sampling run. If the leakage rate is found to be no greater than 0.0003 m^3/min (0.01 cfm) or 4% of the average sampling rate (whichever is less), the leak check results are acceptable. If a higher leakage rate is obtained, the sampling run is invalid.

Note 1 to paragraph (c): Immediately after component changes, leak checks are optional but highly recommended. If such leak checks are done, the procedure in paragraph (c)(1) of this section should be used.

(d) For all tests conducted using ASTM E2515–11 (IBR, see § 60.17), with the exceptions described in paragraphs (c)(1) and (2) of this section, and pursuant to this section, the manufacturer and approved test laboratory must also measure the first hour of particulate matter emissions for each test run by sampling with a third, identical and independent sampling train operated concurrently for the first hour of PM paired train compliance testing according to paragraph (c) of this section. The manufacturer and approved test laboratory must report the test results from this third train separately as the first hour emissions.

* * * * *

■ 6. Amend § 60.539b by revising paragraph (b) to read as follows:

§ 60.539b What parts of the General Provisions do not apply to me?

* * * * *

(b) Section 60.8(a), (c), (d), (e), (f)(1), and (g);

* * * * *

Subpart QQQQ—Standards of Performance for New Residential Hydronic Heaters and Forced-Air Furnaces

■ 7. Amend § 60.5474 by revising paragraphs (b)(2), (3), and (6) to read as follows:

§ 60.5474 What standards and requirements must I meet and by when?

* * * * *

(b) * * *

(2) 2020 residential hydronic heater particulate matter emission limit: 0.10 lb/mmBtu (0.043 g/MJ) heat output per individual burn rate as determined by the crib wood test methods and procedures in § 60.5476 or an alternative crib wood test method approved by the Administrator.

(3) 2020 residential hydronic heater cord wood alternative compliance option for particulate matter emission limit: 0.15 lb/mmBtu (0.064 g/MJ) heat output per individual burn rate as determined by the cord wood test methods and procedures in § 60.5476 or an alternative cord wood test method approved by the Administrator.

* * * * *

(6) 2020 forced-air furnace particulate matter emission limit: 0.15 lb/mmBtu (0.064 g/MJ) heat output per individual burn rate as determined by the cord wood test methods and procedures in § 60.5476 or cord wood test methods approved by the Administrator.

* * * * *

■ 8. Amend § 60.5476 by:

■ a. Removing paragraphs (c)(5) and (6); and
■ b. Revising paragraph (f).
The revision reads as follows:

§ 60.5476 What test methods and procedures must I use to determine compliance with the standards and requirements for certification?

* * * * *

(f) For affected wood heaters subject to the particulate matter emission standards, particulate matter emission concentrations must be measured with ASTM E2515–11 (IBR, see § 60.17) with the following exceptions, eliminate section 9.6.5.1 of ASTM E2515–11 and perform the post-test leak checks as described in paragraph (f)(1) of this section. Additionally, if a component change of either sampling train is needed during sampling, then perform the leak check specified in paragraph (f)(2) of this section. Four-inch filters and Teflon membrane filters or Teflon-coated glass fiber filters may be used in ASTM E2515–11. For all tests conducted using ASTM 2515–11, with the exceptions described in paragraphs (f)(1) and (2) of this section, the manufacturer and approved test laboratory must also measure the first hour of particulate matter emissions for each test run by sampling with a third, identical and independent sampling train operated concurrently with the first hour of PM paired train compliance testing. The manufacturer and approved test laboratory must report the test results for this third train separately as the first hour emissions.

(1) *Post-test leak check.* A leak check of each sampling train is mandatory at the conclusion of each sampling run before sample recovery. The leak check must be performed in accordance with the procedures of ASTM E2515–11, section 9.6.4.1 (IBR, see § 60.17), except that it must be conducted at a vacuum equal to or greater than the maximum value reached during the sampling run. If the leakage rate is found to be no greater than 0.0003 m^3/min (0.01 cfm) or 4% of the average sampling rate (whichever is less), the leak check results are acceptable. If a higher leakage rate is obtained, the sampling run is invalid.

(2) *Leak checks during sample run.* If, during a sampling run, a component (*e.g.,* filter assembly) change becomes necessary, a leak check must be conducted immediately before the change is made. Record the sample volume before and after the leak test. The sample volume collected during any leak checks must not be included in the total sample volume for the test run. The leak check must be done according to the procedure outlined in ASTM E2515–11, section 9.6.4.1 (IBR, see § 60.17), except that it must be done at a vacuum equal to or greater than the maximum value recorded up to that point in the sampling run. If the leakage rate is found to be no greater than 0.0003 m^3/min (0.01 cfm) or 4% of the average sampling rate (whichever is less), the leak check results are acceptable. If a higher leakage rate is obtained, the sampling run is invalid.

Note 1 to paragraph (f): Immediately after component changes, leak checks are optional but highly recommended. If such leak checks are done, the procedure in paragraph (f)(1) of this section should be used.

* * * * *

■ 9. Amend § 60.5483 by revising paragraph (b) to read as follows:

§ 60.5483 What parts of the General Provisions do not apply to me?

* * * * *

(b) Section 60.8(a), (c), (d), (e), (f)(1), and (g);

* * * * *

■ 10. Amend appendix A–1 to part 60 by revising sections 11.5, 11.5.1, and 11.5.2, and table 1–2 under the heading ''17.0 Tables, Diagrams, Flowcharts, and Validation Data'' in method 1 to read as follows:

Appendix A–1 to Part 60—Test Methods 1 Through 2F

* * * * *

Method 1—Sample and Velocity Traverses for Stationary Sources

* * * * *

11.0 Procedure

* * * * *

11.5 Alternative Measurement Site Selection Procedure. The alternative site selection procedure may be used to determine the rotation angles in lieu of the procedure outlined in section 11.4 of this method.

11.5.1 This alternative procedure applies to sources where measurement locations are less than 2 equivalent or duct diameters downstream or less than one-half duct diameter upstream from a flow disturbance. The alternative should be limited to ducts larger than 24 inches in diameter where blockage and wall effects are minimal. A directional flow-sensing probe is used to measure pitch and yaw angles of the gas flow at 40 or more traverse points; the resultant angle is calculated and compared with acceptable criteria for mean and standard deviation.

Note: Both the pitch and yaw angles are measured from a line passing through the traverse point and parallel to the stack axis. The pitch angle is the angle of the gas flow component in the plane that INCLUDES the traverse line and is parallel to the stack axis. The yaw angle is the angle of the gas flow component in the plane PERPENDICULAR to the traverse line at the traverse point and is measured from the line passing through the traverse point and parallel to the stack axis.

11.5.2 Traverse Points. Use a minimum of 40 traverse points for circular ducts and 42 points for rectangular ducts for the gas flow angle determinations. Follow the procedure outlined in section 11.3 and table 1–1 or 1–2 of this method for the location and layout of the traverse points. If the alternative measurement location is determined to be acceptable according to the criteria in this alternative procedure, use the same minimum of 40 traverse points for circular ducts and 42 points for rectangular ducts that were used in the alternative measurement procedure for future sampling and velocity measurements.

* * * * *

17.0 Tables, Diagrams, Flowcharts, and Validation Data

* * * * *

TABLE 1–2—LOCATION OF TRAVERSE POINTS IN CIRCULAR STACKS

[Percent of stack diameter from inside wall to traverse point]

Traverse point number on a diameter	Number of traverse points on a diameter											
	2	4	6	8	10	12	14	16	18	20	22	24
1	14.6	6.7	4.4	3.2	2.6	2.1	1.8	1.6	1.4	1.3	1.1	1.1
2	85.4	25.0	14.6	10.5	8.2	6.7	5.7	4.9	4.4	3.9	3.5	3.2
3		75.0	29.6	19.4	14.6	11.8	9.9	8.5	7.5	6.7	6.0	5.5
4		93.3	70.4	32.3	22.6	17.7	14.6	12.5	10.9	9.7	8.7	7.9
5			85.4	67.7	34.2	25.0	20.1	16.9	14.6	12.9	11.6	10.5
6			95.6	80.6	65.8	35.6	26.9	22.0	18.8	16.5	14.6	13.2
7				89.5	77.4	64.4	36.6	28.3	23.6	20.4	18.0	16.1
8				96.8	85.4	75.0	63.4	37.5	29.6	25.0	21.8	19.4
9					91.8	82.3	73.1	62.5	38.2	30.6	26.2	23.0
10					97.4	88.2	79.9	71.7	61.8	38.8	31.5	27.2
11						93.3	85.4	78.0	70.4	61.2	39.3	32.3

TABLE 1–2—LOCATION OF TRAVERSE POINTS IN CIRCULAR STACKS—Continued

[Percent of stack diameter from inside wall to traverse point]

Traverse point number on a diameter	Number of traverse points on a diameter											
	2	4	6	8	10	12	14	16	18	20	22	24
12						97.9	90.1	83.1	76.4	69.4	60.7	39.8
13							94.3	87.5	81.2	75.0	68.5	60.2
14							98.2	91.5	85.4	79.6	73.8	67.7
15								95.1	89.1	83.5	78.2	72.8
16								98.4	92.5	87.1	82.0	77.0
17									95.6	90.3	85.4	80.6
18									98.6	93.3	88.4	83.9
19										96.1	91.3	86.8
20										98.7	94.0	89.5
21											96.5	92.1
22											98.9	94.5
23												96.8
24												98.9

* * * * *

■ 11. Amend appendix A–3 to part 60 by revising figure 4–3 under the heading ''18.0 Tables, Diagrams, Flowcharts, and Validation Data'' in method 4 to read as follows:

Appendix A–3 to Part 60—Test Methods 4 Through 5I

* * * * *

Method 4—Determination of Moisture Content in Stack Gases

* * * * *

18.0 Tables, Diagrams, Flowcharts, and Validation Data

* * * * *

Figure 4–3 Moisture Field Data Sheet

Plant .....
Location .....
Operator .....
Date .....
Run No. .....
Ambient temperature .....
Barometric pressure .....
Probe length m (ft) .....

SCHEMATIC OF STACK CROSS SECTION

Traverse point number	Sampling time (θ), min.	Stack temperature °C (°F)	Pressure differential across orifice meter Δ H mm (in.) H_2O	Meter reading gas sample volume m^3 (ft^3)	Δ V_m m^3 (ft^3)	Gas Sample temperature at dry gas meter		Temperaturem of gas leaving condenser or last impinger °C (°F)
						Inlet (Tm_{in}), °C (°F)	Outlet (Tm_{out}), °C (°F)	
Total.								
Average.								

* * * * *

■ 12. Amend appendix A–4 to part 60 by revising section 10.1.3 in method 7 to read as follows:

Appendix A–4 to Part 60—Test Methods 6 Through 10B

* * * * *

Method 7—Determination of Nitrogen Oxide Emissions From Stationary Sources

* * * * *

10.0 Calibration and Standardization

* * * * *

10.1.3 Spectrophotometer Calibration Quality Control. Multiply the absorbance value obtained for each standard by the K_c factor (reciprocal of the least squares slope) to determine the distance each calibration point lies from the theoretical calibration line. The difference between the calculated concentration values and the actual concentrations (*i.e.,* 100, 200, 300, and 400 µg NO_2) shall be less than 7 percent for all standards.

* * * * *

■ 13. Amend appendix A–7 to part 60 by:

■ a. Revising equation 19–5 in section 12.2.3.2 in method 19;

■ b. In method 25:

■ i. Adding sections 12.9 and 12.9.1 through 12.9.16; and

■ ii. Revising figure 25–6 under the heading ''17.0 Tables, Diagrams, Flowcharts, and Validation Data''; and

■ c. In method 25C:

■ i. Revising section 9.1; and

■ ii. Revising the entries ''C_{N2}'' and ''C_{mN2}'' in section 12.1.

The revisions and additions read as follows:

Appendix A–7 to Part 60—Test Methods 19 Through 25E

* * * * *

Method 19—Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxide Emission Rates

* * * * *

12.0 Data Analysis and Calculations

* * * * *

12.2.3.2 * * *

$$E = C_d F_d \frac{20.9}{20.9 - \frac{\%O_{2w}}{1 - B_{ws}}} \qquad \text{Eq. 19-5}$$

* * * * *

Method 25—Determination of Total Gaseous Nonmethane Organic Emissions as Carbon

* * * * *

12.0 Data Analysis and Calculations

* * * * *

12.9 Record and Report Initial Method Checks as follows:

12.9.1 Calibration and Linearity Check Gas Certifications (sections 7.2 and 7.4 of this method).

12.9.2 Condensate Trap Blank Check (section 8.1.1 of this method).

12.9.3 Pretest Leak-Check (section 8.1.4 of this method).

12.9.4 Condensate Recovery Apparatus (section 10.1.1 of this method).

12.9.5 Carrier Gas and Auxiliary O_2 Blank Check (section 10.1.1.1 of this method).

12.9.6 Oxidation Catalyst Efficiency Check (section 10.1.1.2 of this method).

12.9.7 System Performance Check (section 10.1.1.3 of this method).

12.9.8 Oxidation Catalyst Efficiency Check (section 10.1.2.1 of this method).

12.9.9 Reduction Catalyst Efficiency Check (section 10.1.2.2 of this method).

12.9.10 NMO Analyzer Linearity Check Calibration (section 10.1.2.3 of this method).

12.9.11 NMO Analyzer Daily Calibration (section 10.2 of this method).

12.9.12 Condensate Recovery (section 11.1 of this method).

12.9.13 Daily Performance Checks (section 11.1.1 of this method).

12.9.14 Leak-Check (section 11.1.1.1 of this method).

12.9.15 System Background Test (section 11.1.1.2 of this method).

12.9.16 Oxidation Catalyst Efficiency Check (section 11.1.1.3 of this method).

* * * * *

17.0 Tables, Diagrams, Flowcharts, and Validation Data

* * * * *

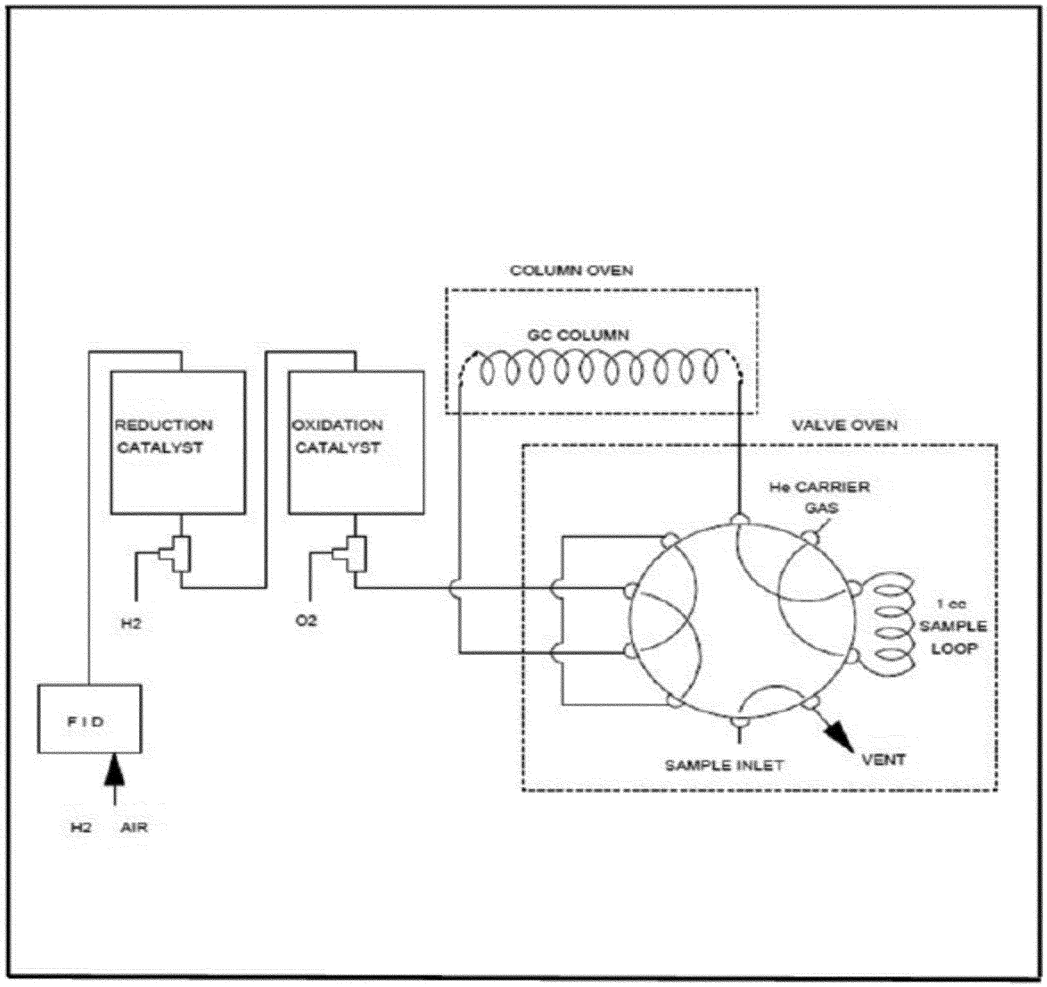

Figure 25–6. Nonmethane Organic Analyzer (NMO)

* * * * *

Method 25C—Determination of Nonmethane Organic Compounds (NMOC) in Landfill Gases

* * * * *

9.0 Quality Control

9.1 Miscellaneous Quality Control Measures.

Section	Quality control measure	Effect
8.4.2	Verify that landfill gas sample contains less than 20 percent N_2 or 5 percent O_2. Landfills with 3-year average annual rainfalls equal to or less than 20 inches annual rainfalls samples are acceptable when the N_2 to O_2 concentration ratio is greater than 3.71.	Ensures that ambient air was not drawn into the landfill gas sample and gas was sampled from an appropriate location.
10.1, 10.2	NMOC analyzer initial and daily performance checks	Ensures precision of analytical results.

* * * * *

12.0 Data Analysis and Calculations

* * * * *

12.1 Nomenclature

* * * * *

C_{N2} = N_2 concentration in the landfill gas sample.

C_{mN2} = Measured N_2 concentration, diluted landfill gas sample.

* * * * *

■ 14. Amend appendix A–8 to part 60 by:

■ a. Revising sections 12.4 and 12.5 in method 26.

■ b. Revising section 13.8 in test method 28WHH.

The revisions read as follows:

Appendix A–8 to Part 60—Test Methods 26 Through 30B

* * * * *

Method 26—Determination of Hydrogen Halide and Halogen Emissions From Stationary Sources Non-Isokinetic Method

* * * * *

12.0 Data Analysis and Calculations

* * * * *

12.4 Total µg HCl, HBr, or HF Per Sample.

$$m_{HX} = K_{HCl,HBr,HF} V_s (S_{x^-} - B_{x^-}) \quad \text{Eq. 26-4}$$

12.5 Total μg Cl_2 or Br_2 Per Sample.

$$m_{x2} = V_s(S_{x^-} - B_{x^-}) \text{ Eq. 26-5}$$

* * * * *

Test Method 28—WHH for Measurement of Particulate Emissions and Heating Efficiency of Wood-Fired Hydronic Heating Appliances

* * * * *

13.0 Calculation of Results

* * * * *

$$CO_{g/min} = Q_{std} \cdot CO_s \cdot 3.30x10^{-5} \quad \text{Eq. 23}$$

Total CO emissions for each of the four test periods (CO_1, CO_2, CO_3, CO_4) shall be calculated as the sum of the emissions rates for each of the 1-minute intervals. Total CO emissions for the test run, CO_T, shall be calculated as the sum of CO_1, CO_2, CO_3 and CO_4.

* * * * *

■ 15. Amend appendix B to part 60 by:
■ a. Revising sections 2.1, 3.1, 6.1, 8.1(1), (2)(iii), and (3)(ii), 8.2(1) through (3), 9.0, 12.1, 13.1, 13.2, and 16.0, reference 8, in performance specification 1;
■ b. Revising sections 8.3.3 and 12.5 in performance specification 2;
■ c. Revising performance specification 4B;
■ d. Revising section 13.2 in performance specification 6;
■ e. Revising sections 8.4.2, 8.4.4, 8.4.5, 8.4.6.1, 13.3, and 17.5, and figure 12A–3 in section 18 in performance specification 12A; and
■ f. Revising sections 1.1, 3.11, 3.12, 9.1, 13.1, and 13.5 in performance specification 16.

The revisions read as follows:

Appendix B to Part 60—Performance Specifications

* * * * *

Performance Specification 1—Specifications and Test Procedures for Continuous Opacity Monitoring Systems in Stationary Sources

* * * * *

2.0 What are the basic requirements of PS–1?

* * * * *

2.1 ASTM D6216–20 (IBR, see § 60.17) is the reference for design specifications, manufacturer's performance specifications, and test procedures. The opacity monitor manufacturer must periodically select and test an opacity monitor, that is representative of a group of monitors produced during a specified period or lot, for conformance with the design specifications in ASTM D6216–20. The opacity monitor manufacturer must test each opacity monitor for conformance with the manufacturer's performance specifications in ASTM D6216–20. *Note:* If the initial certification of the opacity monitor occurred before May 30, 2023, using D6216–98, D6216–03, D6216–07, or D6216–12, it is not necessary to recertify using D6216–20.

* * * * *

3.0 What special definitions apply to PS–1?

3.1 All definitions and discussions from section 3 of ASTM D6216–20 are applicable to PS–1.

* * * * *

6.0 What equipment and supplies do I need?

6.1 *Continuous Opacity Monitoring System.* You, as owner or operator, are responsible for purchasing an opacity monitor that meets the specifications of ASTM D6216–20, including a suitable data recorder or automated data acquisition handling system. Example data recorders include an analog strip chart recorder or more appropriately an electronic data acquisition and reporting system with an input signal range compatible with the analyzer output.

* * * * *

8.0 What performance procedures are required to comply with PS–1?

* * * * *

8.1 * * *

(1) You must purchase an opacity monitor that complies with ASTM D6216–20 and obtain a certificate of conformance from the opacity monitor manufacturer.

(2) * * *

(iii) Alternative Locations and Light Beam Paths. You may select locations and light beam paths, other than those cited in section 8.1(2)(ii) of this method, if you demonstrate, to the satisfaction of the Administrator or delegated agent, that the average opacity measured at the alternative location or path is equivalent to the opacity as measured at a location meeting the criteria of sections 8.1(2)(i) and (ii) of this method. The opacity at the alternative location is considered equivalent if (1) the average opacity value measured at the alternative location is within ±10 percent of the average opacity value measured at the location meeting the installation criteria, and (2) the difference between any two average opacity values is less than 2 percent opacity (absolute). You use the following procedure to conduct this demonstration: simultaneously measure the opacities at the two locations or paths for a minimum period of time (*e.g.,* 180-minutes) covering the range of normal operating conditions and compare the results. You may use alternative procedures for determining acceptable locations if those procedures are approved by the Administrator.

(3) * * *

(ii) Calibration Error Check. Conduct a three-point calibration error test using three calibration attenuators that produce outlet pathlength corrected, single-pass opacity values shown in ASTM D6216–20, section 7.5. If your applicable limit is less than 10 percent opacity, use attenuators as described in ASTM D6216–20, section 7.5 for applicable standards of 10 to 19 percent opacity. Confirm the external audit device produces the proper zero value on the COMS data recorder. Separately, insert each calibration attenuators (low, mid, and high-level) into the external audit device. While inserting each attenuator, (1) ensure that the entire light beam passes through the attenuator, (2) minimize interference from reflected light, and (3) leave the attenuator in place for at least two times the shortest recording interval on the COMS data recorder. Make a total of five nonconsecutive readings for each attenuator. At the end of the test, correlate each attenuator insertion to the corresponding value from the data recorder. Subtract the single-pass calibration attenuator values corrected to the stack exit conditions from the COMS responses. Calculate the arithmetic mean difference, standard deviation, and confidence coefficient of the five measurements value using equations 1–3, 1–4, and 1–5 of this method. Calculate the calibration error as the sum of the absolute value of the mean difference and the 95 percent confidence coefficient for each of the three test attenuators using equation 1–6 of this method. Report the calibration error test results for each of the three attenuators.

* * * * *

8.2 * * *

(1) Conduct the verification procedures for design specifications in section 6 of ASTM D6216–20.

(2) Conduct the verification procedures for performance specifications in section 7 of ASTM D6216–20.

(3) Provide to the owner or operator a report of the opacity monitor's conformance to the design and performance specifications required in sections 6 and 7 of ASTM D6216–20 in accordance with the reporting requirements of section 9 in ASTM D6216–20.

9.0 What quality control measures are required by PS–1?

Opacity monitor manufacturers must initiate a quality program following the requirements of ASTM D6216–20, section 8. The quality program must include (1) a quality system and (2) a corrective action program.

* * * * *

13.8 Carbon Monoxide Emissions

For each minute of the test period, the carbon monoxide emissions rate (g/min) shall be calculated as:

12.0 What calculations are needed for PS–1?

12.1 Desired Attenuator Values. Calculate the desired attenuator value corrected to the emission outlet pathlength as follows:

$$OP_2 = 1 - (1 - OP_1)^{\frac{L_2}{L_1}} \quad \text{Eq. 1-1}$$

Where:

OP_1 = Nominal opacity value of required low-, mid-, or high-range calibration attenuators.

OP_2 = Desired attenuator opacity value from ASTM D6216–20, section 7.5 at the opacity limit required by the applicable subpart of this part.

L_1 = Monitoring pathlength.

L_2 = Emission outlet pathlength.

* * * * *

13.0 What specifications does a COMS have to meet for certification?

* * * * *

13.1 Design Specifications. The opacity monitoring equipment must comply with the design specifications of ASTM D6216–20.

13.2 Manufacturer's Performance Specifications. The opacity monitor must comply with the manufacturer's performance specifications of ASTM D6216–20.

* * * * *

16.0 Which references are relevant to this method?

* * * * *

8. ASTM D6216–20: Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications. American Society for Testing and Materials (ASTM). September 2020.

* * * * *

Performance Specification 2—Specifications and Test Procedures for SO_2 and NO_x Continuous Emission Monitoring Systems in Stationary Sources

* * * * *

8.0 Performance Specification Test Procedure

* * * * *

8.3.3 Conduct the CD test at the two points specified in section 6.1.2 of this method. Introduce to the CEMS the reference gases, gas cells, or optical filters (these need not be certified). When using reference gases, introduce the reference gas prior to any sample conditioning or filtration equipment and ensure that it passes through all filters, scrubbers, conditioners, and other monitor components used during normal sampling. The reference gas should pass through as much of the sampling probe as practical. Record the CEMS response and subtract this value from the reference value (see example data sheet in figure 2–1 of this method).

* * * * *

12.0 Calculations and Data Analysis

* * * * *

12.5 Relative Accuracy. Calculate the RA, expressed as a percentage, of a set of data as follows:

$$RA = \frac{[|\bar{d}| + |CC|]}{\overline{RM}} \times 100 \qquad Eq. 2-6$$

Where:

$|\bar{d}|$ = Absolute value of the mean differences (from equation 2–3 of this method).

$|CC|$ = Absolute value of the confidence coefficient (from equation 2–3 of this method).

$\overline{RM}$ = Average RM value. In cases where the average emissions for the test are less than 50 percent of the applicable emission standard, substitute the applicable emission standard value in the denominator of equation 2–6 of this method in place of the average RM value. In all other cases, use $\overline{RM}$.

* * * * *

Performance Specification 4B—Specifications and Test Procedures for Carbon Monoxide and Oxygen Continuous Monitoring Systems in Stationary Sources

1.0 Scope and Application

1.1. Analytes.

Analyte	CAS No.
Carbon Monoxide (CO)	630–08–0
Oxygen (O_2)	7782–44–7

1.2. Applicability.

1.2.1. This specification is to be used for evaluating the acceptability of carbon monoxide (CO) and oxygen (O_2) continuous emission monitoring systems (CEMS) at the time of or soon after installation and whenever specified in this part. The CEMS may include, for certain stationary sources, (a) flow monitoring equipment to allow measurement of the dry volume of stack effluent sampled, and (b) an automatic sampling system.

1.2.2. This specification is not designed to evaluate the installed CEMS' performance over an extended period of time, nor does it identify specific calibration techniques and auxiliary procedures to assess the CEMS' performance. The source owner or operator, however, is responsible to properly calibrate, maintain, and operate the CEMS. To evaluate the CEMS' performance, the Administrator may require, under section 114 of the Act, the operator to conduct CEMS performance evaluations at times other than the initial test.

1.2.3. The definitions, installation, and measurement location specifications, test procedures, data reduction procedures, reporting requirements, and bibliography are the same as in Performance Specification (PS) 3 (for O_2) and PS 4A (for CO) of this appendix except as otherwise noted in this specification.

2.0 Summary of Performance Specification

Installation and measurement location specifications, performance specifications, test procedures, and data reduction procedures are included in this specification. Reference method tests, calibration error tests, calibration drift tests, and interferant tests are conducted to determine conformance of the CEMS with the specification.

3.0 Definitions

The definitions are the same as in section 3.0 of PS 2 with the following definitions added:

3.1. *Continuous Emission Monitoring System (CEMS).* This definition is the same as section 3.0 of PS 2 with the following addition. A continuous monitor is one in which the sample to be analyzed passes the measurement section of the analyzer without interruption.

3.2. *Response Time (RT).* The time interval between the start of a step change in the system input and when the pollutant analyzer output reaches 95 percent of the final value.

3.3. *Calibration Error (CE).* The difference between the concentration indicated by the CEMS and the known concentration generated by a calibration source when the entire CEMS, including the sampling interface is challenged. A CE test procedure is performed to document the accuracy and linearity of the CEMS over the entire measurement range.

4.0 Interferences [Reserved]

5.0 Safety

This performance specification may involve hazardous materials, operations, and equipment. This performance specification may not address all of the safety problems associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and determine the applicable regulatory limitations prior to performing this performance specification. The CEMS user's manual should be consulted for specific precautions to be taken with regard to the analytical procedures.

6.0 Equipment and Supplies

Same as section 6.0 of PS 2, except for the following:

6.1 Data Recorder Scale. For O_2, same as specified in PS 3, except that the span must be 25 percent. The span of the O_2 may be higher if the O_2 concentration at the sampling point can be greater than 25 percent. For CO, same as specified in PS 4A, except that the low-range span must be 200 ppm and the high range span must be 3000 ppm. In addition, the scale for both CEMS must record all readings within a measurement range with a resolution of 0.5 percent.

7.0 Reagents and Standards

8.0 Sample Collection, Preservation, Storage, and Transport

8.1. Installation and Measurement Location Specifications.

8.1.1. The CEMS Installation. This specification is the same as section 8.1.1 of PS 2 with the following additions. Both the CO and O_2 monitors should be installed at the same general location. If this is not possible, they may be installed at different locations if the effluent gases at both sample locations are not stratified and there is no in-leakage of air between sampling locations.

8.1.2. Measurement Location. Same as section 8.1.2 of PS 2.

8.1.2.1. Point CEMS. The measurement point should be within or centrally located over the centroidal area of the stack or duct cross section.

8.1.2.2. Path CEMS. The effective measurement path should: (1) have at least 70 percent of the path within the inner 50 percent of the stack or duct cross sectional area, or (2) be centrally located over any part of the centroidal area.

8.1.3. Reference Method (RM) Measurement Location and Traverse Points.

This specification is the same as section 8.1.3 of PS 2 with the following additions. When pollutant concentration changes are due solely to diluent leakage and CO and O_2 are simultaneously measured at the same location, one half diameter may be used in place of two equivalent diameters.

8.2 Pretest Preparation. Install the CEMS, prepare the RM test site according to the specifications in section 8.1 of this method, and prepare the CEMS for operation according to the manufacturer's written instructions.

8.3 Stratification Test Procedure. Stratification is defined as the difference in excess of 10 percent between the average concentration in the duct or stack and the concentration at any point more than 1.0 meter from the duct or stack wall. To determine whether effluent stratification exists, a dual probe system should be used to determine the average effluent concentration while measurements at each traverse point are being made. One probe, located at the stack or duct centroid, is used as a stationary reference point to indicate change in the effluent concentration over time. The second probe is used for sampling at the traverse points specified in method 1 in appendix A to this part. The monitoring system samples sequentially at the reference and traverse points throughout the testing period for five minutes at each point.

8.4 Calibration Drift (CD) Test Procedure. Same as section 8.3 in PS 2.

Note: The CE and RT tests must be conducted during the CD test period.

8.5 Calibration Error Test Procedure. Challenge each monitor (both low and high range CO and O_2) with zero gas and EPA Protocol 1 cylinder gases at three measurement points within the ranges specified in table 4B–1 of this method (in section 18.0).

Operate each monitor in its normal sampling mode as nearly as possible. The calibration gas must be injected into the sample system as close to the sampling probe outlet as practical and should pass through all CEMS components used during normal sampling. Challenge the CEMS three non-consecutive times at each measurement point and record the responses. The duration of each gas injection should be sufficient to ensure that the CEMS surfaces are conditioned.

8.6 Response Time Test Procedure. Same as section 8.3 in PS 4A and must be carried out for both the CO and O_2 monitors.

8.7 Relative Accuracy Test Procedure. Sampling Strategy for Reference Method (RM) Tests, Number of RM Tests, and Correlation of RM and CEMS Data are the same as PS 2, sections 8.4.3, 8.4.4, and 8.4.5, respectively.

9.0 Quality Control [Reserved]

10.0 Calibration and Standardization [Reserved]

11.0 Analytical Procedure

Sample collection and analysis are concurrent for this performance specification (see section 8.0 of this method). Refer to the RM for specific analytical procedures.

12.0 Calculation and Data Analysis

Summarize the results on a data sheet as shown in figure 4B–1 of this method (in section 18.0).

Calibration Error (CE) is the average the differences between the instrument response and the certified cylinder gas value for each gas. Calculate the CE results for the CO monitor according to:

$$CE = \left|\frac{d}{FS}\right| \times 100 \qquad \text{Eq. 4B-1}$$

Where:

d = mean difference between the CEMS response and the known reference concentration, and

FS = span value.

The CE for the O_2 monitor is the average percent O_2 difference between the O_2 monitor and the certified cylinder gas value for each gas.

13.0 Method Performance

13.1. Calibration Drift Performance Specification. For O_2, same as specified in PS 3. For CO, the same as specified in PS 4A except that the CEMS calibration must not drift from the reference value of the calibration standard by more than 3 percent of the span value on either the high or low range.

13.2. Calibration Error (CE) Performance Specification. The mean difference between the CEMS and reference values at all three test points (see table 4B–1 of this method) must be no greater than 5 percent of span value for CO monitors and 0.5 percent for O_2 monitors.

13.3. Response Time Performance Specification. The response time for the CO or O_2 monitor must not exceed 240 seconds.

13.4. Relative Accuracy (RA) Performance Specification. For O_2, same as specified in PS 3. For CO, the same as specified in PS 4A.

14.0 Pollution Prevention [Reserved]

15.0 Waste Management [Reserved]

16.0 Alternative Procedure

Alternative RA Procedure. Under some operating conditions, it may not be possible to obtain meaningful results using the RA test procedure. This includes conditions where consistent, very low CO emission or low CO emissions interrupted periodically by short duration, high level spikes are observed. It may be appropriate in these circumstances to waive the RA test and substitute the following procedure.

Conduct a complete CEMS status check following the manufacturer's written instructions. The check should include operation of the light source, signal receiver, timing mechanism functions, data acquisition and data reduction functions, data recorders, mechanically operated functions, sample filters, sample line heaters, moisture traps, and other related functions of the CEMS, as applicable. All parts of the CEMS must be functioning properly before the RA requirement can be waived. The instrument must also successfully pass the CE and CD specifications. Substitution of the alternate procedure requires approval of the Regional Administrator.

17.0 Reference

1. 40 CFR part 266, appendix IX, section 2, ''Performance Specifications for Continuous Emission Monitoring Systems.''

18.0 Tables, Diagrams, Flowcharts, and Validation Data

TABLE 4B–1—CALIBRATION ERROR CONCENTRATION RANGE

Measurement point	CO low range (ppm)	CO high range (ppm)	O_2 (%)
1	0–40	0–600	0–2
2	60–80	900–1,200	8–10
3	140–160	2,100–2,400	14–16

FIGURE 4B–1—CALIBRATION ERROR DATA SHEET

Run No.	Calibration value	Monitor response	Difference		
			Zero	Mid	High
1—Zero. 2—Mid. 3—High. 4—Mid. 5—Zero. 6—High. 7—Zero. 8—Mid. 9—High.					
Mean Difference =					
Calibration Error =			%	%	%

* * * * *

Performance Specification 6—Specifications and Test Procedures for Continuous Emission Rate Monitoring Systems in Stationary Sources

* * * * *

13.0 Method Performance

* * * * *

13.2 CERMS Relative Accuracy. Calculate the CERMS Relative Accuracy (RA) expressed as a percentage using equation 2–6 of section 12 of PS 2. The RA of the CERMS shall be no greater than 20.0 percent in terms of the units of the emission standard. If the average emissions for the test are less than 50 percent of the applicable emission standard, you may elect to substitute the applicable emission standard value in the denominator of equation 2–6 in place of the average RM value; in this case, the RA of the CERMS shall be no greater than 10.0 percent consistent with section 13.2 of PS 2.

* * * * *

Performance Specification 12A—Specifications and Test Procedures for Total Vapor Phase Mercury Continuous Emission Monitoring Systems in Stationary Sources

* * * * *

8.0 Performance Specification Test Procedure

* * * * *

8.4.2 Reference Methods (RM). Unless otherwise specified in an applicable subpart of this part, use method 29, method 30A, or method 30B in appendix A–8 to this part or ASTM Method D6784–16 (IBR, see § 60.17) as the RM for Hg concentration. For method 29 and ASTM Method D6784–16 only, the filterable portion of the sample need not be included when making comparisons to the CEMS results. When method 29, method 30B, or ASTM D6784–16 is used, conduct the RM test runs with paired or duplicate sampling systems and use the average of the vapor phase Hg concentrations measured by the two trains. When method 30A is used, paired sampling systems are not required. If the RM and CEMS measure on a different moisture basis, data derived with method 4 in appendix A–3 to this part must also be obtained during the RA test.

* * * * *

8.4.4 Number and Length of RM Test Runs. Conduct a minimum of nine RM test runs. When method 29, method 30B, or ASTM D6784–16 is used, only test runs for which the paired RM trains meet the relative deviation criteria (RD) of this PS must be used in the RA calculations. In addition, for method 29 and ASTM D6784–16, use a minimum sample time of 2 hours and for methods 30A and 30B use a minimum sample time of 30 minutes.

Note: More than nine sets of RM test runs may be performed. If this option is chosen, RM test run results may be excluded so long as the total number of RM test run results used to determine the CEMS RA is greater than or equal to nine. However, all data must be reported including the excluded test run data.

8.4.5 Correlation of RM and CEMS Data. Correlate the CEMS and the RM test data as to the time and duration by first determining from the CEMS final output (the one used for reporting) the integrated average pollutant concentration for each RM test period. Consider system response time, if important, and confirm that the results are on a consistent moisture basis with the RM test. Then, compare each integrated CEMS value against the corresponding RM value. When method 29, method 30B, or ASTM D6784–16 is used, compare each CEMS value against the corresponding average of the paired RM values.

* * * * *

8.4.6.1 When method 29, method 30B, or ASTM D6784–16 is used, outliers are identified through the determination of relative deviation (RD) of the paired RM tests. Data that do not meet the RD criteria must be flagged as a data quality problem and may not be used in the calculation of RA. The primary reason for performing paired RM sampling is to ensure the quality of the RM data. The percent RD of paired data is the parameter used to quantify data quality. Determine RD for paired data points as follows:

$$RD = \frac{|C_a - C_b|}{C_a + C_b} \times 100 \quad \text{(Equation 12A-3)}$$

Where C_a and C_b are the Hg concentration values determined from the paired samples.

* * * * *

13.0 Method Performance

* * * * *

13.3 Relative Accuracy (RA). The RA of the CEMS must be no greater than 20 percent of the mean value of the RM test data in terms of units of µg/scm. Alternatively, if the mean RM is less than 2.5 µg/scm, the results are acceptable if the absolute value of the difference between the mean RM and CEMS values added to the absolute value of the confidence coefficient from equation 12A–7 of this method does not exceed 0.5 µg/scm.

* * * * *

17.0 Bibliography

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17.5 ASTM Method D6784–16, ''Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method).''

18.0 Tables and Figures

* * * * *

FIGURE 12A–3—RELATIVE ACCURACY TEST DATA

Run No.	Date	Begin time	End time	RM value (µg/m³)	CEMS value (µg/m³)	Difference (µg/m³)	Run used? (yes/no)	RD [1]
1.								
2.								
3.								
4.								
5.								

FIGURE 12A–3—RELATIVE ACCURACY TEST DATA—Continued

Run No.	Date	Begin time	End time	RM value ($\mu g/m^3$)	CEMS value ($\mu g/m^3$)	Difference ($\mu g/m^3$)	Run used? (yes/no)	RD [1]
6.								
7.								
8.								
9.								
10.								
11.								
12								
Average Values								

Arithmetic Mean Difference:
Standard Deviation:
Confidence Coefficient:
T-Value:
% Relative Accuracy:
$|(RM)_{avg} - (CEMS)_{avg}|$:

[1] Calculate the RD only if paired samples are taken using RM 30B, RM 29, or ASTM D6784–16. Express RD as a percentage or, for very low RM concentrations (≤1.0 $\mu g/m^3$), as the absolute difference between C_a and C_b.

* * * * *

Performance Specification 16—Specifications and Test Procedures for Predictive Emission Monitoring Systems in Stationary Sources

1.0 Scope and Application

1.1 *Does this performance specification apply to me?* If you, the source owner or operator, intend to use (with any necessary approvals) a predictive emission monitoring system (PEMS) to show compliance with your emission limitation under this part or 40 CFR part 61 or 63, you must use the procedures in this performance specification (PS) to determine whether your PEMS is acceptable for use in demonstrating compliance with applicable requirements. Use these procedures to certify your PEMS after initial installation and periodically thereafter to ensure the PEMS is operating properly. If your PEMS contains a diluent (O_2 or CO_2) measuring component, the diluent component must be tested as well. These specifications apply to PEMS that are installed under this part and 40 CFR parts 61 and 63 after May 30, 2023.

* * * * *

3.0 Definitions

* * * * *

3.11 *Relative Accuracy Audit (RAA)* means a quarterly audit of the PEMS against a portable analyzer meeting the requirements of ASTM D6522–00 or a RM for a specified number of runs. A RM may be used in place of the portable analyzer for the RAA.

3.12 *Relative Accuracy Test Audit (RATA)* means a RA test that is performed at least once every four calendar quarters after the initial certification test. The RATA shall be conducted as described in section 8.2 of this method.

* * * * *

9.0 Quality Control

* * * * *

9.1 QA/QC Summary. Conduct the applicable ongoing tests listed in this section.

ONGOING QUALITY ASSURANCE TESTS

Test	PEMS regulatory purpose	Acceptability	Frequency
Sensor Evaluation	All		Daily.
RAA	All	Same as for RA in section 13.5 of this method	Each quarter except quarter when RATA performed.
RATA	All	Same as for RA in section 13.1 of this method	Yearly in quarter when RAA not performed.
Bias Correction	All	If $d_{avg} \leq \|cc\|$	Bias test passed (no correction factor needed).
PEMS Training	All	If $F_{critical} \geq F$, $r \geq 0.8$	Optional after initial and subsequent RATAs.
Sensor Evaluation Alert Test (optional)	All	See section 6.1.8 of this method	After each PEMS training.

* * * * *

13.0 Method Performance

13.1 PEMS Relative Accuracy. The RA, calculated in units of the emission standard, must not exceed 10 percent if the PEMS measurements are greater than 100 ppm or 0.2 lbs/mm Btu. The RA must not exceed 20 percent if the PEMS measurements are between 100 ppm (or 0.2 lb/mm Btu) and 10 ppm (or 0.02 lb/mm Btu). For measurements below 10 ppm (or 0.02 lb/mm Btu), the absolute mean difference between the PEMS measurements and the RM measurements must not exceed 2 ppm (or 0.01 lb/mm Btu). For diluent only PEMS, an alternative criterion of ±1 percent absolute difference between the PEMS and RM may be used if less stringent.

* * * * *

13.5 Relative Accuracy Audits (RAA). The average of the three portable analyzer or RM determinations must not differ from the simultaneous PEMS average value by more than 10 percent of the analyzer or RM for concentrations greater than 100 ppm (or 0.2 lb/mm Btu) or 20 percent for concentrations between 100 ppm (or 0.2 lb/mm Btu) and 10 ppm (or 0.02 lb/mm Btu), or the test is failed. For measurements at 20 ppm (or 0.04 lb/mm Btu) or less, this difference must not exceed 2 ppm (or 0.01 lb/mm Btu) for a pollutant PEMS. For diluent PEMS, the difference must not exceed 1 percent.

* * * * *

The revisions and addition read as follows:

Appendix F to Part 60—Quality Assurance Procedures

Procedure 1. Quality Assurance Requirements for Gas Continuous Emission Monitoring Systems Used for Compliance Determination

* * * * *

4. CD Assessment

4.1 CD Requirement. As described in § 60.13(d), source owners and operators of CEMS must check, record, and quantify the CD at two concentration values at least once daily (approximately 24 hours) in accordance with the method prescribed by the manufacturer. When using reference gases, introduce the reference gas prior to any sample conditioning or filtration equipment

■ 16. Amend appendix F to part 60 by:
■ a. Revising sections 4.1, 5.2.3, and 6.2 in procedure 1; and
■ b. In procedure 5:
■ i. Revising section 2.5;
■ ii. Revising the heading for section 4.0 and adding section 4.4; and
■ iii. Revising section 5.1.3.

and ensure that it passes through all filters, scrubbers, conditioners, and other monitor components used during normal sampling. The reference gas must pass through as much of the sampling probe as practical. The CEMS calibration must, at a minimum, be adjusted whenever the daily zero (or low-level) CD or the daily high-level CD exceeds two times the limits of the applicable PS's in appendix B to this part.

* * * * *

5. Data Accuracy Assessment

* * * * *

5.2.3 Criteria for Excessive Audit Inaccuracy. Unless specified otherwise in the applicable subpart of this part, the criteria for excessive inaccuracy are:

(1) For the RATA, the allowable RA in the applicable PS in appendix B to this part.

(2) For the CGA, for pollutant monitors, the audit inaccuracy must be ±15 percent of the average audit value as calculated using equation 1–1 of this method or the difference between the average CEMS response and the average audit value must be less than one of the following:

Analyzer span	Alternative CGA criteria (ppm)
≥50 ppm	±5
>20 ppm, but ≤50 ppm	±3
≤20 ppm	+2

For diluent monitors, ±15 percent of the average audit value.

(3) For the RAA, ±15 percent of the three-run average or ±7.5 percent of the applicable standard, whichever is greater.

* * * * *

6. Calculations for CEMS Data Accuracy

* * * * *

6.2 RAA Accuracy Calculation. Use equation 1–1 of this method to calculate the accuracy for the RAA. The RAA must be calculated in the units of the applicable emission standard.

* * * * *

Procedure 5. Quality Assurance Requirements for Vapor Phase Mercury Continuous Emissions Monitoring Systems and Sorbent Trap Monitoring Systems Used for Compliance Determination at Stationary Sources

* * * * *

2.0 Definitions

* * * * *

2.5 *Calibration Drift (CD)* means the absolute value of the difference between the CEMS output response and either the upscale elemental Hg reference gas or the zero-level elemental Hg reference gas, expressed as a percentage of the span value, when the entire CEMS, including the sampling interface, is challenged after a stated period of operation during which no unscheduled maintenance, repair, or adjustment took place.

* * * * *

4.0 Calibration Drift (CD) Assessment and Weekly System Integrity Check

* * * * *

4.4 Weekly System Integrity Check. At least once every 7 operating days, using the procedure described in section 8.3.3 of Performance Specification 12A in appendix B to this part, source owners and operators of Hg CEMS must use a single mid- or high-level oxidized Hg (mercuric chloride, $HgCl_2$) reference gas to assess transport and measurement of oxidized mercury. The absolute value of the difference between the Hg CEMS output response and the reference gas must be less than or equal to 10.0 percent of the reference gas value or 0.8 µg/scm.

* * * * *

5.0 Data Accuracy Assessment

* * * * *

5.1.3 Relative Accuracy Audit (RAA). As an alternative to the QGA, a RAA may be conducted in three of four calendar quarters, but in no more than three quarters in succession. To conduct a RAA, follow the RATA test procedures in section 8.5 of PS 12A in appendix B to this part, except that only three test runs are required. Calculate the relative accuracy according to equation 1–1 of Procedure 1 of this appendix.

* * * * *

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

■ 17. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart A—General Provisions

■ 18. Amend § 63.14 by:

■ a. Redesignating paragraphs (d) through (t) as paragraphs (e) through (u);

■ b. Adding new paragraph (d); and

■ c. Revising newly redesignated paragraphs (i)(103) and (104).

The addition and revisions read as follows:

§ 63.14 Incorporations by reference.

* * * * *

(d) American Public Health Association, 1015 18th Street NW, Washington, DC 20036; phone (844) 232–3707; email: *standardmethods@subscritpionoffice.com*; website: *www.standardmethods.org*.

(1) Standard Method 5210, Biochemical Oxygen Demand (BOD), revised December 10, 2019; IBR approved for § 63.457(c)

(2) [Reserved]

* * * * *

(i) * * *

(103) ASTM D6784–02 (Reapproved 2008), Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), Approved April 1, 2008; IBR approved for §§ 63.2465(d); 63.11646(a); 63.11647(a) and (d); tables 1, 2, 5, 11, 12t, and 13 to subpart DDDDD; tables 4 and 5 to subpart JJJJJ; tables 4 and 6 to subpart KKKKK; table 4 to subpart JJJJJJ.

(104) ASTM D6784–16, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), Approved March 1, 2016; IBR approved for table 5 to subpart UUUUU; appendix A to subpart UUUUU.

* * * * *

Subpart S—National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry

■ 19. Amend § 63.457 by revising paragraph (c)(4) to read as follows:

§ 63.457 Test methods and procedures.

* * * * *

(c) * * *

(4) To determine soluble BOD_5 in the effluent stream from an open biological treatment unit used to comply with §§ 63.446(e)(2) and 63.453(j), the owner or operator shall use section B of method 5210 (IBR, see § 63.14) with the following modifications:

(i) Filter the sample through the filter paper, into an Erlenmeyer flask by applying a vacuum to the flask sidearm. Minimize the time for which vacuum is applied to prevent stripping of volatile organics from the sample. Replace filter paper as often as needed in order to maintain filter times of less than approximately 30 seconds per filter paper. No rinsing of sample container or filter bowl into the Erlenmeyer flask is allowed.

(ii) Perform method 5210B on the filtrate obtained in paragraph (c)(4) of this section. Dilution water shall be seeded with 1 milliliter of final effluent per liter of dilution water. Dilution ratios may require adjustment to reflect the lower oxygen demand of the filtered sample in comparison to the total BOD_5. Three BOD bottles and different dilutions shall be used for each sample.

* * * * *

Subpart EEE—National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors

■ 20. Amend the appendix to subpart EEE of part 63 by revising the appendix heading and section 5 to read as follows:

Appendix A to Subpart EEE of Part 63—Quality Assurance Procedures for Continuous Emissions Monitors Used for Hazardous Waste Combustors

* * * * *

5. Performance Evaluation for CO, O_2, and HC CEMS

Carbon Monoxide (CO), Oxygen (O_2), and Hydrocarbon (HC) CEMS. An Absolute Calibration Audit (ACA) must be conducted quarterly, and a Relative Accuracy Test Audit (RATA) (if applicable, see sections 5.1 and 5.2 of this method) must be conducted yearly. When a performance test is also required under § 63.1207 to document compliance with emission standards, the RATA must coincide with the performance test. The audits must be conducted as follows.

5.1 *Relative Accuracy Test Audit (RATA).* This requirement applies to O_2 and CO CEMS. The RATA must be conducted at least yearly. Conduct the RATA as described in the RA test procedure (or alternate procedures section) described in the applicable performance specifications. In addition, analyze the appropriate performance audit samples received from the EPA as described in the applicable sampling methods.

5.2 *Absolute Calibration Audit (ACA).* The ACA must be conducted at least quarterly except in a quarter when a RATA (if applicable, see section 5.1 of this method) is conducted instead. Conduct an ACA as described in the calibration error (CE) test procedure described in the applicable performance specifications.

5.3 *Excessive Audit Inaccuracy.* If the RA from the RATA or the CE from the ACA exceeds the criteria in the applicable performance specifications, hazardous waste burning must cease immediately. Hazardous waste burning cannot resume until the owner or operator takes corrective measures and audit the CEMS with a RATA to document that the CEMS is operating within the specifications.

* * * * *

Subpart JJJJ—National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating

■ 21. Amend § 63.3360 by revising paragraph (e)(1)(vi) introductory text to read as follows:

§ 63.3360 What performance tests must I conduct?

* * * * *

(e) * * *

(1) * * *

(vi) Method 25 or 25A of appendix A–7 to 40 CFR part 60 must be used to determine total gaseous organic matter concentration. Use the same test method for both the inlet and outlet measurements which must be conducted simultaneously. You must submit notice of the intended test method to the Administrator for approval along with notification of the performance test required under § 63.7(b). You must use method 25A if any of the conditions described in paragraphs (e)(1)(vi)(A) through (D) of this section apply to the control device.

* * * * *

Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

■ 22. Revise table 4 to subpart ZZZZ of part 63 to read as follows:

Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests

As stated in §§ 63.6610, 63.6611, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB, 4SLB, and CI stationary RICE.	a. Reduce CO emissions.	i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and	.....	(a) For CO, O_2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter *and* the sampling port location meets the two and half-diameter criterion of section 11.1.1 of method 1 of 40 CFR part 60, appendix A–1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to section 8.1.2 of method 7E of 40 CFR part 60, appendix A–4.
		ii. Measure the O_2 at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A–2, or ASTM D6522–00 (Reapproved 2005)[1] [3] (heated probe not necessary).	(b) Measurements to determine O_2 must be made at the same time as the measurements for CO concentration.
		iii. Measure the CO at the inlet and the outlet of the control device; and	(2) ASTM D6522–00 (Reapproved 2005)[1] [2] [3] (heated probe not necessary) or method 10 of 40 CFR part 60, appendix A–4.	(c) The CO concentration must be at 15 percent O_2, dry basis.
		iv. Measure moisture content at the inlet and outlet of the control device as needed to determine CO and O_2 concentrations on a dry basis.	(3) Method 4 of 40 CFR part 60, appendix A–3, or method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03[1] [3].	(d) Measurements to determine moisture content must be made at the same time and location as the measurements for CO concentration.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
2. 4SRB stationary RICE.	a. Reduce formaldehyde or THC emissions.	i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and	.....	(a) For formaldehyde, THC, O_2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter *and* the sampling port location meets the two and half-diameter criterion of section 11.1.1 of method 1 of 40 CFR part 60, appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to section 8.1.2 of method 7E of 40 CFR part 60, appendix A.
		ii. Measure O_2 at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A–2, or ASTM D6522–00 (Reapproved 2005)[1 3] (heated probe not necessary).	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for formaldehyde or THC concentration.
		iii. Measure moisture content at the inlet and outlet of the control device as needed to determine formaldehyde or THC and O_2 concentrations on a dry basis; and	(2) Method 4 of 40 CFR part 60, appendix A–3, or method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03[1 3].	(c) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or THC concentration.
		iv. If demonstrating compliance with the formaldehyde percent reduction requirement, measure formaldehyde at the inlet and the outlet of the control device.	(3) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,[1 3] provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130.	(d) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. If demonstrating compliance with the THC percent reduction requirement, measure THC at the inlet and the outlet of the control device.	(4) (1) Method 25A, reported as propane, of 40 CFR part 60, appendix A–7.	(e) THC concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
3. Stationary RICE	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust.	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary RICE; and	.....	(a) For formaldehyde, CO, O_2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter *and* the sampling port location meets the two and half-diameter criterion of section 11.1.1 of method 1 of 40 CFR part 60, appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to section 8.1.2 of method 7E of 40 CFR part 60, appendix A. If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2 concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A–2, or ASTM D6522–00 (Reapproved 2005)[1 3] (heated probe not necessary).	(b) Measurements to determine O_2 concentration must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location as needed to determine formaldehyde or CO and O_2 concentrations on a dry basis; and	(2) Method 4 of 40 CFR part 60, appendix A–3, or method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03[1 3].	(c) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iv. Measure formaldehyde at the exhaust of the stationary RICE; or	(3) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,[1 3] provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130.	(d) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		v. Measure CO at the exhaust of the stationary RICE.	(4) Method 10 of 40 CFR part 60, appendix A–4, ASTM D6522–00 (2005),[1] [3] method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03 [1] [3].	(e) CO concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

[1] You may also use methods 3A and 10 as options to ASTM–D6522–00 (2005).
[2] You may obtain a copy of ASTM–D6348–03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.
[3] Incorporated by reference, see § 63.14.

Subpart PPPPP—National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Stands

■ 23. Amend § 63.9306 by revising paragraph (d)(2)(iv) to read as follows:

§ 63.9306 What are my continuous parameter monitoring system (CPMS) installation, operation, and maintenance requirements?

* * * * *

(d) * * *

(2) * * *

(iv) Using a pressure sensor with measurement sensitivity of 0.002 inch water, check gauge calibration quarterly and transducer calibration monthly.

* * * * *

■ 24. Amend § 63.9322 by revising paragraph (a)(1) to read as follows:

§ 63.9322 How do I determine the emission capture system efficiency?

* * * * *

(a) * * *

(1) The capture system meets the criteria in method 204 of appendix M to 40 CFR part 51 for a permanent total enclosure (PE) and directs all the exhaust gases from the enclosure to an add-on control device.

* * * * *

Subpart UUUUU—National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units

■ 25. Revise table 5 to subpart UUUUU of part 63 to read as follows:

Table 5 to Subpart UUUUU of Part 63—Performance Testing Requirements

As stated in § 63.10007, you must comply with the following requirements for performance testing for existing, new or reconstructed affected sources: [1]

BILLING CODE 6560–50–P

To conduct a performance test for the following pollutant . . .	Using . . .	You must perform the following activities, as applicable to your input- or output-based emission limit . . .	Using . . .[2]
1. Filterable Particulate matter (PM)	Emissions Testing	a. Select sampling ports location and the number of traverse points	Method 1 at appendix A-1 to part 60 of this chapter.
		b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2A, 2C, 2F, 2G or 2H at appendix A-1 or A-2 to part 60 of this chapter.
		c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B at appendix A-2 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981.[3]
		d. Measure the moisture content of the stack gas	Method 4 at appendix A-3 to part 60 of this chapter.
		e. Measure the filterable PM concentration	Methods 5 and 5I at appendix A-3 to part 60 of this chapter. For positive pressure fabric filters, method 5D at appendix A-3 to part 60 of this chapter for filterable PM emissions. Note that the method 5 or 5I front half temperature shall be 160° ±14 °C (320° ±25 °F).
		f. Convert emissions concentration to lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at appendix A-7 to part 60 of this chapter or calculate using mass emissions rate and gross output data (see § 63.10007(e)).
	OR	OR	
	PM CEMS	a. Install, certify, operate, and maintain the PM CEMS	Performance Specification 11 at appendix B to part 60 of this chapter and Procedure 2 at appendix F to part 60 of this chapter.
		b. Install, certify, operate, and maintain the diluent gas, flow rate, and/or	Part 75 of this chapter and § 63.10010(a) through (d).

		moisture monitoring systems	
		c. Convert hourly emissions concentrations to 30 boiler operating day rolling average lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at appendix A-7 to part 60 of this chapter or calculate using mass emissions rate and gross output data (see § 63.10007(e)).
2. Total or individual non-Hg HAP metals	Emissions Testing	a. Select sampling ports location and the number of traverse points	Method 1 at appendix A-1 to part 60 of this chapter.
		b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2A, 2C, 2F, 2G or 2H at appendix A-1 or A-2 to part 60 of this chapter.
		c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B at appendix A-2 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981.[3]
		d. Measure the moisture content of the stack gas	Method 4 at appendix A-3 to part 60 of this chapter.
		e. Measure the HAP metals emissions concentrations and determine each individual HAP metals emissions concentration, as well as the total filterable HAP metals emissions concentration and total HAP metals emissions concentration	Method 29 at appendix A-8 to part 60 of this chapter. For liquid oil-fired units, Hg is included in HAP metals and you may use method 29, method 30B at appendix A-8 to part 60 of this chapter or ASTM D6784-16,[3] for method 29 or ASTM D 6784-16, you must report the front half and back half results separately. When using method 29, report metals matrix spike and recovery levels.
		f. Convert emissions concentrations (individual HAP metals, total filterable HAP metals, and total HAP metals) to lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at appendix A-7 to part 60 of this chapter or calculate using mass emissions rate and gross output data (see § 63.10007(e)).
3. Hydrogen chloride (HCl) and hydrogen fluoride (HF)	Emissions Testing	a. Select sampling ports location and the number of traverse points	Method 1 at appendix A-1 to part 60 of this chapter.

		b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2A, 2C, 2F, 2G or 2H at appendix A-1 or A-2 to part 60 of this chapter.
		c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B at appendix A-2 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981.[3]
		d. Measure the moisture content of the stack gas	Method 4 at appendix A-3 to part 60 of this chapter.
		e. Measure the HCl and HF emissions concentrations	Method 26 or method 26A at appendix A-8 to part 60 of this chapter or method 320 at appendix A to part 63 of this chapter or ASTM D6348-03(R2010)[3] with
			(1) the following conditions when using ASTM D6348-03(R2010):
			(A) The test plan preparation and implementation in the Annexes to ASTM D6348-03(R2010), sections A1 through A8 are mandatory;
			(B) For ASTM D6348-03(R2010) Annex A5 (Analyte Spiking Technique), the percent (%) R must be determined for each target analyte (see Equation A5.5);
			(C) For the ASTM D6348-03(R2010) test data to be acceptable for a target analyte, %R must be 70% ≥R ≤130%; and
			(D) The %R value for each compound must be reported in the test report and all field measurements corrected with the calculated %R value for that compound using the following equation: $Report\ Result = \frac{(Measured\ Concentration\ in\ Stack)}{\%R} x\ 100$

To conduct a performance test for the following pollutant . . . (cont'd)	Using . . . (cont'd)	You must perform the following activities, as applicable to your input- or output-based emission limit . . . (cont'd)	Using . . .[2] (cont'd)
			(2) spiking levels nominally no greater than two times the level corresponding to the applicable emission limit.
			Method 26A must be used if there are entrained water droplets in the exhaust stream.
		f. Convert emissions concentration to lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at appendix A-7 to part 60 of this chapter or calculate using mass emissions rate and gross output data (see § 63.10007(e)).
	OR	OR	
	HCl and/or HF CEMS	a. Install, certify, operate, and maintain the HCl or HF CEMS	Appendix B of this subpart.
		b. Install, certify, operate, and maintain the diluent gas, flow rate, and/or moisture monitoring systems	Part 75 of this chapter and § 63.10010(a) through (d).
		c. Convert hourly emissions concentrations to 30 boiler operating day rolling average lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at appendix A-7 to part 60 of this chapter or calculate using mass emissions rate and gross output data (see § 63.10007(e)).
4. Mercury (Hg)	Emissions Testing	a. Select sampling ports location and the number of traverse points	Method 1 at appendix A-1 to part 60 of this chapter or method 30B at appendix A-8 for method 30B point selection.
		b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2A, 2C, 2F, 2G or 2H at appendix A-1 or A-2 to part 60 of this chapter.

		c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B at appendix A-1 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981.[3]
		d. Measure the moisture content of the stack gas	Method 4 at appendix A-3 to part 60 of this chapter.
		e. Measure the Hg emission concentration	Method 30B at appendix A-8 to part 60 of this chapter, ASTM D6784-16,[3] or method 29 at appendix A-8 to part 60 of this chapter; for method 29 or ASTM D 6784-16, you must report the front half and back half results separately.
		f. Convert emissions concentration to lb/TBtu or lb/GWh emission rates	Method 19 F-factor methodology at appendix A-7 to part 60 of this chapter or calculate using mass emissions rate and gross output data (see § 63.10007(e)).
	OR	OR	
	Hg CEMS	a. Install, certify, operate, and maintain the CEMS	Sections 3.2.1 and 5.1 of appendix A of this subpart.
		b. Install, certify, operate, and maintain the diluent gas, flow rate, and/or moisture monitoring systems	Part 75 of this chapter and § 63.10010(a) through (d).
		c. Convert hourly emissions concentrations to 30 boiler operating day rolling average lb/TBtu or lb/GWh emissions rates	Section 6 of appendix A to this subpart.
	OR	OR	
	Sorbent trap monitoring system	a. Install, certify, operate, and maintain the sorbent trap monitoring system	Sections 3.2.2 and 5.2 of appendix A to this subpart.

		b. Install, operate, and maintain the diluent gas, flow rate, and/or moisture monitoring systems	Part 75 of this chapter and § 63.10010(a) through (d).
		c. Convert emissions concentrations to 30 boiler operating day rolling average lb/TBtu or lb/GWh emissions rates	Section 6 of appendix A to this subpart.
	OR	OR	
	LEE testing	a. Select sampling ports location and the number of traverse points	Single point located at the 10% centroidal area of the duct at a port location per method 1 at appendix A-1 to part 60 of this chapter or method 30B at appendix A-8 to part 60 of this chapter for method 30B point selection.
		b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2A, 2C, 2F, 2G, or 2H at appendix A-1 or A-2 to part 60 of this chapter or flow monitoring system certified per appendix A of this subpart.
		c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B at appendix A-1 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981,[3] or diluent gas monitoring systems certified according to part 75 of this chapter.
		d. Measure the moisture content of the stack gas	Method 4 at appendix A-3 to part 60 of this chapter, or moisture monitoring systems certified according to part 75 of this chapter.
		e. Measure the Hg emission concentration	Method 30B at appendix A-8 to part 60 of this chapter; perform a 30 operating day test, with a maximum of 10 operating days per run (*i.e.,* per pair of sorbent traps) or sorbent trap monitoring system or Hg CEMS certified per appendix A of this subpart.
		f. Convert emissions concentrations from	Method 19 F-factor methodology at appendix A-7 to part 60 of this chapter

		the LEE test to lb/TBtu or lb/GWh emissions rates	or calculate using mass emissions rate and gross output data (see § 63.10007(e)).
		g. Convert average lb/TBtu or lb/GWh Hg emission rate to lb/year, if you are attempting to meet the 29.0 lb/year threshold	Potential maximum annual heat input in TBtu or potential maximum electricity generated in GWh.
5. Sulfur dioxide (SO_2)	SO_2 CEMS	a. Install, certify, operate, and maintain the CEMS	Part 75 of this chapter and § 63.10010(a) and (f).
		b. Install, operate, and maintain the diluent gas, flow rate, and/or moisture monitoring systems	Part 75 of this chapter and § 63.10010(a) through (d).
		c. Convert hourly emissions concentrations to 30 boiler operating day rolling average lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at appendix A-7 to part 60 of this chapter or calculate using mass emissions rate and gross output data (see § 63.10007(e)).

[1] Regarding emissions data collected during periods of startup or shutdown, see §§ 63.10020(b) and (c) and 63.10021(h).

[2] See tables 1 and 2 to this subpart for required sample volumes and/or sampling run times.

[3] Incorporated by reference, see § 63.14.

■ 26. Amend appendix A to subpart UUUUU of part 63 by revising sections 4.1.1.5 and 4.1.1.4.1 to read as follows:

Appendix A to Subpart UUUUU of Part 63—Hg Monitoring Provisions

* * * * *

4. Certification and Recertification Requirements

* * * * *

4.1.1.5 *Relative Accuracy Test Audit (RATA).* Perform the RATA of the Hg CEMS at normal load. Acceptable Hg reference methods for the RATA include ASTM D6784–16 (IBR, see § 63.14) and methods 29, 30A, and 30B in appendix A–8 to part 60 of this chapter. When method 29 or ASTM D6784–16 is used, paired sampling trains are required, and the filterable portion of the sample need not be included when making comparisons to the Hg CEMS results for purposes of a RATA. To validate a method 29 or ASTM D6784–16 test run, calculate the relative deviation (RD) using equation A–1 of this section, and assess the results as follows to validate the run. The RD must not exceed 10 percent, when the average Hg concentration is greater than 1.0 µg/dscm. If the RD specification is met, the results of the two samples shall be averaged arithmetically.

$$RD = \frac{|C_a - C_b|}{C_a + C_b} \times 100 \quad (Eq.\ A-1)$$

Where:

RD = Relative Deviation between the Hg concentrations of samples ''a'' and ''b'' (percent),

C_a = Hg concentration of Hg sample ''a'' (µg/dscm), and

C_b = Hg concentration of Hg sample ''b'' (µg/dscm).

4.1.1.5.1 *Special Considerations.* A minimum of nine valid test runs must be performed, directly comparing the CEMS measurements to the reference method. More than nine test runs may be performed. If this option is chosen, the results from a maximum of three test runs may be rejected so long as the total number of test results used to determine the relative accuracy is greater than or equal to nine; however, all data must be reported including the rejected data. The minimum time per run is 21 minutes if method 30A is used. If method 29, method 30B, or ASTM D6784–16 is used, the time per run must be long enough to collect a sufficient mass of Hg to analyze. Complete the RATA within 168 unit operating hours, except when method 29 or ASTM D6784–162 is used, in which case, up to 336 operating hours may be taken to finish the test.

* * * * *

■ 27. Amend appendix A to part 63 by:

■ a. Redesignating section 6.2 under the heading ''16.0 Alternative Procedures'' as section 16.2 in method 315; and

■ b. In method 323:

■ i. Revising sections 10.1 and 10.3;

■ ii. In section 12.1:

■ A. Adding the entry ''b'' following the entry ''B = estimated sampling rate, Lpm''; and

■ B. Revising the entry ''K_c''; and

■ iii. Revising section 12.6.

The revisions and addition read as follows:

Appendix A to Part 63—Test Methods

* * * * *

Method 323—Measurement of Formaldehyde Emissions From Natural Gas-Fired Stationary Sources—Acetyl Acetone Derivatization Method

* * * * *

10.0 Calibration and Standardization

10.1 Spectrophotometer Calibration. Prepare a stock solution of 10 µg/mL formaldehyde. Prepare a series of calibration standards from the stock solution corresponding to 0.0, 0.5, 1.5, 3.5, 5.0, and 7.5 µg/mL formaldehyde. Mix 2.0 ml of each calibration standard with 2.0 mL of acetyl acetone reagent in screw cap vials, thoroughly mix the solution, and place the vials in a water bath (or heating block) at 60 °C for 10 minutes. Remove the vials and allow to cool to room temperature. Transfer each solution to a cuvette and measure the absorbance at 412 nm using the spectrophotometer. Develop a calibration curve (response vs. concentration) from the analytical results of these standards. The acceptance criteria for the spectrophotometer calibration is a correlation coefficient of 0.99 or higher. If this criterion is not met, the calibration procedures should be repeated.

* * * * *

10.3 Calibration Checks. Calibration checks consisting of analyzing a mid-range standard separately prepared with each batch of samples. The calibration check standard must be prepared independent of the calibration stock solution. The result of the check standard must be within 10 percent of the theoretical value to be acceptable. If the acceptance criteria are not met, the standard must be reanalyzed. If still unacceptable, a new calibration curve must be prepared using freshly prepared standards.

* * * * *

12.0 Calculations and Data Analysis

12.1 Nomenclature

* * * * *

b = the intercept of the calibration curve at zero concentration.

* * * * *

K_c = spectrophotometer calibration factor, slope of the least square regression line, absorbance/(µg/mL) (*Note:* Most spreadsheets are capable of calculating a least squares line, including slope, intercept, and correlation coefficient).

* * * * *

12.6 Mass of Formaldehyde in Liquid Sample

$$m = \frac{(A-b)*F}{K_c}(V_t)\left(\frac{1\,mg}{1000\mu g}\right) \quad \text{Eq. 323-5}$$

* * * * *

[FR Doc. 2023–04956 Filed 3–28–23; 8:45 am]

BILLING CODE 6560–50–C

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R04–OAR–2021–0769; FRL–10576–02–R4]

Air Plan Approval; NC; Transportation Conformity

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is approving State Implementation Plan (SIP) revisions submitted by the State of North Carolina, through the North Carolina Department of Environmental Quality (DEQ), Division of Air Quality (DAQ) on September 24, 2021. The SIP revisions replace previously approved memoranda of agreement (MOAs) with thirteen updated MOAs outlining transportation conformity criteria and procedures related to interagency consultation, conflict resolution, public participation, and enforceability of certain transportation-related control and mitigation measures. EPA is approving North Carolina's September 24, 2021, SIP revisions as they are consistent with the applicable provisions of the Clean Air Act (CAA or Act).

DATES: This rule is effective April 28, 2023.

ADDRESSES: EPA has established a docket for this action under Docket Identification EPA–R04–OAR–2021–0769. All documents in the docket are listed on the *regulations.gov* website. Although listed in the index, some information may not be publicly available, *i.e.,* Confidential Business Information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *www.regulations.gov* or in hard copy at the Air Regulatory Management Section, Air Planning and Implementation Branch, Air and Radiation Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street SW, Atlanta, Georgia 30303–8960. EPA requests that, if possible, you contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection. The Regional Office's official hours of business are Monday through Friday 8:30 a.m. to 4:30 p.m., excluding Federal holidays.

FOR FURTHER INFORMATION CONTACT: Kelly Sheckler, Air Regulatory Management Section, Air Planning and Implementation Branch, Air and Radiation Division, Region 4, U.S. Environmental Protection Agency, 61 Forsyth Street SW, Atlanta, Georgia 30303–8960. The telephone number is (404) 562–9222 Ms. Sheckler can also be reached via electronic mail at *sheckler.kelly@epa.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

As described in a notice of proposed rulemaking (NPRM) published on February 7, 2023 (88 FR 7903), CAA section 176(c)(4)(E) and 40 CFR 51.390(b) require states to develop conformity SIPs that address three specific provisions of federal regulations. First, EPA's transportation conformity rule requires states to develop their own processes and procedures which meet the criteria in 40 CFR 93.105 for interagency consultation and resolution of conflicts among the federal, state, and local agencies. The SIP revision must include processes and procedures to be followed by the metropolitan planning organization (MPO), state Department of Transportation (DOT), and the United States Department of Transportation (USDOT) in consultation with the state and local air quality agencies and EPA before making conformity determinations. The conformity SIP revision must also include processes and procedures for the state and local air quality agencies and EPA to coordinate the development of applicable SIPs with MPOs, state DOTs and the USDOT.

States may choose to develop, in place of regulations, an MOA which establishes the roles and procedures for transportation conformity. The MOA includes the detailed consultation procedures developed for that particular area. The MOAs are enforceable through the signature of all the transportation and air quality agencies, including the USDOT's Federal Highway Administration, USDOT's Federal Transit Administration, and EPA.

North Carolina's September 24, 2021, conformity SIP revisions add new interagency partners and MPOs, establish new procedures for interagency consultation, dispute resolution, public participation and enforceability of certain transportation-

related control measures and mitigation measures, and supersede the MOAs incorporated into the SIP on December 26, 2013. The list of MPOs for which North Carolina has established MOAs in the September 24, 2021, submission, include Burlington-Graham MPO, Cabarrus-Rowan MPO, Charlotte Regional Transportation Planning Organization, Durham-Chapel Hill-Carrboro MPO, Gaston-Cleveland-Lincoln MPO, Greater Hickory MPO, Greensboro Urban Area MPO, High Point Urban Area MPO, North Carolina Capital Area MPO, Rocky Mount Urban Area MPO, the Great Smoky Mountains National Park (NPS), and Rural Area (NC DOT).

Table 1, below, identifies the applicable national ambient air quality standards (NAAQS) for which each planning agency is required to implement transportation conformity, and therefore, establish interagency consultation procedures. As stated above, the MOAs are the documents which establish each area's interagency consultation procedures.

TABLE 1—MOA ADMINISTRATORS AND THE APPLICABLE NAAQS FOR TRANSPORTATION CONFORMITY

MOA administrator	Applicable NAAQS
Burlington-Graham MPO	1997 8-hour ozone and 1997 annual fine particulate matter ($PM_{2.5}$) NAAQS.
Cabarrus-Rowan MPO	1997 8-hour ozone, 2008 8-hour ozone, and 2015 8-hour ozone NAAQS.
Charlotte Regional Transportation Planning Organization.	1971 carbon monoxide (CO), 1997 8-hour ozone, and 2008 8-hour ozone NAAQS.
Durham-Chapel Hill-Carrboro MPO	1971 CO and 1997 8-hour ozone NAAQS.
Gaston-Cleveland-Lincoln MPO	1997 8-hour ozone and 2008 8-hour ozone NAAQS.
Greater Hickory MPO	1997 annual $PM_{2.5}$ NAAQS.
Greensboro Urban Area MPO	1997 annual $PM_{2.5}$ NAAQS.
High Point Urban Area MPO	1971 CO and 1997 annual $PM_{2.5}$ NAAQS.
North Carolina Capital Area MPO	1971 CO and 1997 8-hour ozone NAAQS.
Rocky Mount Urban Area MPO	1997 8-hour ozone NAAQS.
Winston-Salem-Forsyth Urban Area MPO	1971 CO and 1997 annual $PM_{2.5}$ NAAQS.
Rural (counties not covered by MPO, administered by NC DOT) [1].	1997 8-hour ozone NAAQS.
Great Smoky Mountains National Park (administered by NPS).	1997 8-hour ozone NAAQS.

[1] Person County is the only county subject to transportation conformity requirements per the 1997 8-hour ozone NAAQS that does not have an MPO responsible for it.

In the February 7, 2023, NPRM, EPA proposed to approve updated MOAs for thirteen counties in North Carolina. The changes to the MOAs provide for updates to roles and responsibilities as they relate to transportation conformity. The details of North Carolina's submission and the rationale for EPA's action are explained further in the February 7, 2023, NPRM. Comments on the February 7, 2023, NPRM were due on or before March 9, 2023. No adverse comments were received.

II. Final Actions

EPA is approving the aforementioned changes to the North Carolina SIP. Specifically, EPA is approving the replacement of previously approved MOAs with thirteen updated MOAs for the Burlington-Graham MPO, Cabarrus-Rowan MPO, Charlotte Regional Transportation Planning Organization, Durham-Chapel Hill-Carrboro MPO, Gaston-Cleveland-Lincoln MPO, Greater Hickory MPO, Greensboro Urban Area MPO, High Point Urban Area MPO, North Carolina Capital Area MPO, Rocky Mount Urban Area MPO, the Great Smoky Mountains National Park (NPS), and Rural Area (NC DOT); outlining transportation conformity criteria and procedures related to interagency consultation; conflict resolution; public participation; and enforceability of certain transportation-related control and mitigation measures. This action also establishes consultation procedures and mitigation measures in the State of North Carolina. EPA is approving these actions because are consistent with section 110 and 176 of the CAA and will not interfere with any applicable requirement concerning attainment and reasonable further progress or any other applicable requirement of the CAA.

III. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. *See* 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided they meet the criteria of the CAA. These actions merely approve state law as meeting Federal requirements and do not impose additional requirements beyond those imposed by state law. For that reason, these actions:

- Are not significant regulatory actions subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Do not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Are certified as not having significant economic impacts on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Do not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);
- Do not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Are not economically significant regulatory actions based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Are not significant regulatory actions subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Are not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Do not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible

methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

The SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), nor will it impose substantial direct costs on tribal governments or preempt tribal law.

The Congressional Review Act, 5 U.S.C. 801 *et seq.,* as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing these actions 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**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. These actions are not a ''major rule'' as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by May 30, 2023. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of these actions for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed and shall not postpone the effectiveness of such rule or action. These actions may not be challenged later in proceedings to enforce its requirements. *See* section 307(b)(2).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: March 22, 2023.

Daniel Blackman,

Regional Administrator, Region 4.

For the reasons stated in the preamble, the EPA amends 40 CFR part 52 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 II—North Carolina

■ 2. In § 52.1770, amend the table in paragraph (e) by adding entries for the following at the end of the table:
■ a. Burlington-Graham Interagency Transportation Conformity Memorandum of Agreement;
■ b. Cabarrus-Rowan Interagency Transportation Conformity Memorandum of Agreement;
■ c. Charlotte Regional Interagency Transportation Conformity Memorandum of Agreement;
■ d. Durham-Chapel Hill-Carrboro Interagency Transportation Conformity Memorandum of Agreement;
■ e. Gaston-Cleveland-Lincoln Interagency Transportation Conformity Memorandum of Agreement;
■ f. Greater Hickory Interagency Transportation Conformity Memorandum of Agreement;
■ g. Greensboro Urban Area Interagency Transportation Conformity Memorandum of Agreement;
■ h. High Point Urban Area Interagency Transportation Conformity Memorandum of Agreement;
■ i. North Carolina Capital Area Interagency Transportation Conformity Memorandum of Agreement;
■ j. Rocky Mount Urban Area Interagency Transportation Conformity Memorandum of Agreement;
■ k. Winston-Salem-Forsyth Urban Area Interagency Transportation Conformity Memorandum of Agreement;
■ l. Rural (counties not covered by MPO, administered by North Carolina DOT) Interagency Transportation Conformity Memorandum of Agreement;
■ m. Great Smoky Mountains National Park (administered by NPS) Interagency Transportation Conformity Memorandum of Agreement.

The additions read as follows:

§ 52.1770 Identification of plan.

* * * * *

(e) * * *

EPA-APPROVED NORTH CAROLINA NON-REGULATORY PROVISIONS

Provision	State effective date	EPA approval date	**Federal Register** citation	Explanation
* * *	*	*	*	*
Burlington-Graham Interagency Transportation Conformity Memorandum of Agreement.	1/30/2023	3/29/2023	[Insert **Federal Register** citation].	
Cabarrus-Rowan Interagency Transportation Conformity Memorandum of Agreement.	1/20/2023	3/29/2023	[Insert **Federal Register** citation].	
Charlotte Regional Interagency Transportation Conformity Memorandum of Agreement.	1/30/2023	3/29/2023	[Insert **Federal Register** citation].	
Durham-Chapel Hill-Carrboro Interagency Transportation Conformity Memorandum of Agreement.	1/30/2023	3/29/2023	[Insert **Federal Register** citation].	
Gaston-Cleveland-Lincoln Interagency Transportation Conformity Memorandum of Agreement.	1/30/2023	3/29/2023	[Insert **Federal Register** citation].	
Greater Hickory Interagency Transportation Conformity Memorandum of Agreement.	1/30/2023	3/29/2023	[Insert **Federal Register** citation].	
Greensboro Urban Area Interagency Transportation Conformity Memorandum of Agreement.	1/27/2023	3/29/2023	[Insert **Federal Register** citation].	
High Point Urban Area Interagency Transportation Conformity Memorandum of Agreement.	1/27/2023	3/29/2023	[Insert **Federal Register** citation].	
North Carolina Capital Area Interagency Transportation Conformity Memorandum of Agreement.	1/27/2023	3/29/2023	[Insert **Federal Register** citation].	
Rocky Mount Urban Area Interagency Transportation Conformity Memorandum of Agreement.	1/27/2023	3/29/2023	[Insert **Federal Register** citation].	

EPA-APPROVED NORTH CAROLINA NON-REGULATORY PROVISIONS—Continued

Provision	State effective date	EPA approval date	**Federal Register** citation	Explanation
Winston-Salem-Forsyth Urban Area Interagency Transportation Conformity Memorandum of Agreement.	1/27/2023	3/29/2023	[Insert **Federal Register** citation].	
Rural (counties not covered by MPO, administered by North Carolina DOT) Interagency Transportation Conformity Memorandum of Agreement.	1/27/2023	3/29/2023	[Insert **Federal Register** citation].	
Great Smoky Mountains National Park (administered by NPS) Interagency Transportation Conformity Memorandum of Agreement.	1/30/2023	3/29/2023	[Insert **Federal Register** citation].	

[FR Doc. 2023–06425 Filed 3–28–23; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R08–OAR–2022–0612; FRL–10300–02–R8]

Approval and Promulgation of Implementation Plans; Colorado; Revisions to Code of Colorado Regulations; Regulation Number 3

Correction

In rule document 2023–06120, appearing on pages 18054–18056 in the issue of Monday, March 27, 2023, make the following correction:

§ 52.320 [Corrected]

■ On page 18056, in the table, in the fourth column, in the ninth row, ''3/2/2023'' should read ''3/27/2023''.

[FR Doc. C1–2023–06120 Filed 3–28–23; 8:45 am]

BILLING CODE 0099–10–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R10–OAR–2022–0719, FRL–10254–02–R10]

Air Plan Approval; ID; Incorporation by Reference Updates

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is approving a revision to the Idaho State Implementation Plan (SIP) submitted on May 4, 2022. The submission updates the incorporation by reference of the national ambient air quality standards and related planning and monitoring requirements into the Idaho air quality rules as of July 1, 2021. Idaho undertakes such updates regularly to ensure the state air quality rules and the federally enforceable Idaho SIP remain consistent with EPA air quality regulations over time.

DATES: This final rule is effective April 28, 2023.

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA–R10–OAR–2022–0719. All documents in the docket are listed on the *https://www.regulations.gov* website. Although listed in the index, some information is not publicly available, *e.g.,* Confidential Business Information or other information the disclosure of which is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available at *https://www.regulations.gov,* or please contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section for additional availability information.

FOR FURTHER INFORMATION CONTACT: Kristin Hall (15–H13), EPA Region 10, 1200 Sixth Avenue (Suite 155), Seattle, WA 98101, (206) 553–6357, *hall.kristin@epa.gov.*

SUPPLEMENTARY INFORMATION: Throughout this document wherever ''we'' or ''our'' is used, it refers to the EPA.

Table of Contents

I. Background

On May 4, 2022, Idaho submitted updates to the SIP to incorporate the national ambient air quality standards and other Federal regulations by reference as of July 1, 2021. The SIP revision, state effective March 24, 2022, includes specific air quality regulations codified in the Idaho Rules for the Control of Air Pollution (IDAPA 58.01.01). On December 19, 2022, the EPA proposed to approve the submitted SIP revision (87 FR 77544). The reasons for our proposed approval are included in the proposal and will not be restated here. The public comment period closed on January 18, 2023. We received no public comments. Therefore, we are finalizing the action as proposed.

II. Final Action

The EPA is approving and incorporating by reference revisions to the Idaho SIP submitted on May 4, 2022. Upon the effective date of this action, the Idaho SIP will include IDAPA 58.01.01.107 Incorporation by Reference, subsection 03, paragraphs a through e, state effective March 24, 2022. This provision incorporates the national ambient air quality standards and related planning and monitoring requirements as of July 1, 2021.

III. Incorporation by Reference

In this document, the EPA is finalizing regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, we are finalizing the incorporation by reference of Idaho regulatory provisions described in section II of this preamble and set forth below in the amendments to 40 CFR part 52. The EPA has made, and will continue to make, these materials generally available through *https://www.regulations.gov* and at the EPA Region 10 Office (please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble for more information). Therefore, these materials have been approved by the EPA for inclusion in the SIP, have been incorporated by reference by the EPA into that plan, are fully federally enforceable under sections 110 and 113 of the Clean Air Act as of the effective date of the final rule of the EPA's approval, and will be

incorporated by reference in the next update to the SIP compilation.[1]

IV. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Clean Air Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a ''significant regulatory action'' subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);
- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001); and
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act.

[1] 62 FR 27968 (May 22, 1997).

Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 FR 7629, February 16, 1994) directs Federal agencies to identify and address ''disproportionately high and adverse human health or environmental effects'' of their actions on minority populations and low-income populations to the greatest extent practicable and permitted by law. 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.''

The air agency did not evaluate environmental justice considerations as part of its SIP submittal; the Clean Air Act and applicable implementing regulations neither prohibit nor require such an evaluation. The EPA did not perform an EJ analysis and did not consider EJ in this action. Due to the nature of this action, it is expected to have a neutral to positive impact on the air quality of the affected area. Consideration of EJ is not required as part of this action, and there is no information in the record inconsistent with the stated goal of Executive Order 12898 of achieving environmental justice for people of color, low-income populations, and Indigenous peoples.

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and it will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

This action is subject to the Congressional Review Act, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by May 30, 2023. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. See section 307(b)(2).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: March 22, 2023.

Casey Sixkiller,

Regional Administrator, Region 10.

For the reasons set forth in the preamble, 40 CFR part 52 is amended 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 N—Idaho

■ 2. In § 52.670, amend the table in paragraph (c) by revising entry ''107'' to read as follows:

§ 52.670 Identification of plan.

* * * * *

(c) * * *

EPA APPROVED IDAHO REGULATIONS AND STATUTES

State citation	Title/subject	State effective date	EPA approval date	Explanations
Idaho Administrative Procedures Act (IDAPA) 58.01.01—Rules for the Control of Air Pollution in Idaho				
*	*	*	*	* * *
107	Incorporation by Reference ..	3/24/2022	3/29/2023, [INSERT **FEDERAL REGISTER** CITATION].	Except Section 107.03.f through 107.03.p.
*	*	*	*	* * *

* * * * *

[FR Doc. 2023–06357 Filed 3–28–23; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 180

[EPA–HQ–OPP–2021–0744; FRL–10769–01–OCSPP]

Fludioxonil; Pesticide Tolerances

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This regulation modifies existing tolerances for residues of fludioxonil in or on mango and papaya. Syngenta Crop Protection, LLC requested these tolerances under the Federal Food, Drug, and Cosmetic Act (FFDCA).

DATES: This regulation is effective March 29, 2023. Objections and requests for hearings must be received on or before May 30, 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–2021–0744, 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 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: Daniel Rosenblatt, Registration Division (7505T), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460–0001; main telephone number: (202) 566–1030; email address: *RDFRNotices@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 EPA's tolerance regulations at 40 CFR part 180 through the Government Publishing Office's e-CFR site at *https://www.ecfr.gov/current/title-40/chapter-I/subchapter-E/part-180?toc=1.*

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–2021–0744 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 May 30, 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–2021–0744, 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.*

Additional instructions on commenting or visiting the docket, along with more information about dockets generally, is available at *https://www.epa.gov/dockets.*

II. Summary of Petitioned-For Tolerance

In the **Federal Register** of October 24, 2022 (87 FR 64196) (FRL–9410–06–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 petition (PP 1E8947) by Syngenta Crop Protection, LLC, 410

Swing Road, Greensboro, NC 27409. The petition requested that 40 CFR 180.516 be amended by establishing import tolerances for residues of the fungicide fludioxonil, [4-(2,2-difluoro-1,3-benzodioxol-4-yl)-1*H*-pyrrole-3-carbonitrile], in or on mango at 15 parts per million (ppm) and papaya at 8 ppm. That document referenced a summary of the petition prepared by Syngenta Crop Protection, LLC, the registrant, which is available in the docket, *https://www.regulations.gov.* There were no comments received in response to the notice of filing.

Based upon review of the data supporting the petition and in accordance with its authority under FFDCA section 408(d)(4)(A)(i), EPA is modifying the existing tolerances for residues of fludioxonil in or on mango and papaya at different levels than requested. The reasons for these changes are explained in Unit IV.C.

III. Aggregate Risk Assessment and Determination of Safety

Section 408(b)(2)(A)(i) of FFDCA allows EPA to establish a tolerance (the legal limit for a pesticide chemical residue in or on a food) only if EPA determines that the tolerance is ''safe.'' Section 408(b)(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. Section 408(b)(2)(C) of FFDCA requires EPA to give special consideration to exposure of infants and children to the pesticide chemical residue in establishing a tolerance 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. . . .''

Consistent with FFDCA section 408(b)(2)(D), and the factors specified therein, EPA has reviewed the available scientific data and other relevant information in support of this action. EPA has sufficient data to assess the hazards of and to make a determination on aggregate exposure for fludioxonil, including exposure resulting from the tolerances modified by this action. EPA's assessment of exposures and risks associated with fludioxonil follows.

In an effort to streamline its publications in the **Federal Register**, EPA is not reprinting sections of the rule that repeat what has been previously published in tolerance rulemakings for the same pesticide chemical. Where scientific information concerning a particular chemical remains unchanged, the content of those sections would not vary between tolerance rulemakings, and EPA considers referral back to those sections as sufficient to provide an explanation of the information EPA considered in making its safety determination for the new rulemaking.

EPA has previously published a number of tolerance rulemakings for fludioxonil in which EPA concluded, based on the available information, that there is a reasonable certainty that no harm would result from aggregate exposure to fludioxonil and established tolerances for residues of that chemical. EPA is incorporating previously published sections from those rulemakings as described further in this rule, as they remain unchanged.

A. Toxicological Profile

EPA has evaluated the available toxicity data and considered its validity, completeness, and reliability as well as the relationship of the results of the studies to human risk. EPA has also considered available information concerning the variability of the sensitivities of major identifiable subgroups of consumers, including infants and children.

Specific information on the studies received and the nature of the adverse effects caused by fludioxonil as well as the no-observed-adverse-effect-level (NOAEL) and the lowest-observed-adverse-effect-level (LOAEL) from the toxicity studies are discussed in Unit III.A. of the final rule published in the **Federal Register** of November 6, 2018 (83 FR 55491) (FRL–9982–75).

B. Toxicological Points of Departure/Levels of Concern

A summary of the toxicological endpoints for fludioxonil used for human health risk assessment is discussed in Unit III.B. of the final rule published in the **Federal Register** of August 14, 2015 (80 FR 48743) (FRL–9931–06).

C. Exposure Assessment

Much of the exposure assessment remains the same although updates have occurred to accommodate exposures from the petitioned-for tolerances. These updates are discussed in this section; for a description of the rest of the EPA approach to and assumptions for the exposure assessment, please reference Unit III.C. of the November 6, 2018, rulemaking.

1. *Dietary exposure from food and feed uses.* EPA's dietary exposure assessments have been updated to include the additional exposure from the petitioned-for tolerances for residues of fludioxonil on mango and papaya. An acute dietary risk assessment was not performed since no endpoint attributable to a single exposure (dose) was identified from the available oral toxicity database. The chronic assessment is based on tolerance-level residues and assumes 100 percent crop treated (PCT); the chronic assessment is unrefined. The assessment was conducted using the Dietary Exposure Evaluation Model software with the Food Commodity Intake Database (DEEM–FCID), Version 4.02, which incorporates 2005–2010 food consumption information from the United States Department of Agriculture's (USDA's) National Health and Nutrition Examination Survey, What We Eat in America, (NHANES/WWEIA). A cancer dietary exposure and risk assessment was not conducted for fludioxonil as it is a Group D chemical—not classifiable as to human carcinogenicity.

2. *Dietary exposure from drinking water.* The proposed post-harvest application uses on imported fruit do not result in an increase in the estimated residue levels in drinking water, so the estimated drinking water concentrations used in the November 6, 2018, final rule are the same as those used in this assessment.

3. *From non-dietary exposure.* The term ''residential exposure'' is used in this document to refer to non-occupational, non-dietary exposure (*e.g.,* for lawn and garden pest control, indoor pest control, termiticides, and flea and tick control on pets). The assessment used the same assumptions as the November 6, 2018. The residential exposures used in the aggregate assessment are inhalation exposures from handlers applying paints with airless sprayers for adults and incidental oral exposures (hand-to-mouth) from post-application exposure to outdoor treated turf for children 1 to <2 years old.

4. *Cumulative effects from substances with a common mechanism of toxicity.* Section 408(b)(2)(D)(v) of FFDCA requires that, when considering whether to establish, modify, leave in effect, 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.''

Unlike other pesticides for which EPA has followed a cumulative risk approach based on a common mechanism of toxicity, EPA has not made a common

mechanism of toxicity finding as to fludioxonil and any other substances, and fludioxonil does not appear to produce a toxic metabolite produced by other substances. For the purposes of this tolerance action, therefore, EPA has not assumed that fludioxonil has a common mechanism of toxicity with other substances.

D. Safety Factor for Infants and Children

EPA continues to conclude that there are reliable data to support the reduction of the Food Quality Protection Act (FQPA) safety factor. See Unit III.D. of the November 6, 2018, rulemaking for a discussion of the Agency's rationale for that determination.

E. Aggregate Risks and Determination of Safety

EPA determines whether acute and chronic dietary pesticide exposures are safe by comparing aggregate exposure estimates to the acute population adjusted dose (aPAD) and chronic population adjusted dose (cPAD). For linear cancer risks, EPA calculates the lifetime probability of acquiring cancer given the estimated aggregate exposure. Short-, intermediate-, and chronic-term risks are evaluated by comparing the estimated aggregate food, water, and residential exposure to the appropriate points of departure (PODs) to ensure that an adequate margin of exposure (MOE) exists.

An acute dietary exposure assessment was not performed as there were no indication of an adverse effects attributable to a single dose. Fludioxonil is not expected to pose an acute risk. Chronic dietary risks are below the Agency's level of concern of 100% of the cPAD; they are 14% of the cPAD for the general population and 49% of the cPAD for children 1–2 years old, the population subgroup receiving the highest exposure.

EPA has concluded the combined short-term food, water, and residential exposures result in aggregate MOEs of 1200 for adults and 290 for children 1–2 years old. Because EPA's level of concern for fludioxonil is an MOE of 100 or below, short-term aggregate risks are not of concern. Intermediate- and long-term aggregate risk assessments were not performed because there are no registered or proposed uses of fludioxonil that result in intermediate- or long-term residential exposures. Fludioxonil is not classifiable as to human carcinogenicity; therefore, EPA does not expect exposures to pose an aggregate cancer risk.

Therefore, based on the risk assessments and information described above, EPA concludes that there is a reasonable certainty that no harm will result to the general population, or to infants and children, from aggregate exposure to fludioxonil residues. More detailed information on this action can be found in the document titled ''Fludioxonil. Human Health Risk Assessment for the Proposed Tolerances without a U.S. Registration for Residues of Fludioxonil in/on Mango and Papaya.'' in docket ID number EPA–HQ–OPP–2021–0744.

IV. Other Considerations

A. Analytical Enforcement Methodology

For a discussion of the available analytical enforcement method, see Unit IV.A. of the November 6, 2018, rulemaking.

B. International Residue Limits

In making its tolerance decisions, EPA seeks to harmonize U.S. tolerances with international standards whenever possible, consistent with U.S. food safety standards and agricultural practices. EPA considers the international maximum residue limits (MRLs) established by the Codex Alimentarius Commission (Codex), as required by FFDCA section 408(b)(4).

There is no Codex MRL for fludioxonil in or on papaya. Canada has established an MRL for fludioxonil in or on papaya at 5 ppm, which is the same as the U.S. tolerance as modified by this action. Codex and Canada have established MRLs for fludioxonil in or on mango at 2 ppm. These MRLs are different than the U.S. tolerance as modified by this action, which is 8 ppm for fludioxonil residues in or on mango. EPA is not harmonizing the U.S. tolerance with the Codex and Canadian MRLs because the proposed post-harvest application use on fruit imported into the United States results in residues greater than 2 ppm. The increased tolerance of 8 ppm is needed to cover residues resulting from post-harvest application to imported fruit and would not affect trade channels with Canada or the European Union.

C. Revisions to Petitioned-For Tolerances

The registrant petitioned for import tolerances of 15 ppm for mango and 8 ppm for papaya. However, EPA has previously established tolerances for residues of fludioxonil in or on mango and papaya, both at 5.0 ppm, at 40 CFR 180.516. In this action, EPA is modifying these established tolerances by increasing the tolerance for mango to 8 ppm and revising the tolerance for papaya to 5 ppm based on the submitted field trial data, Organization for Economic Co-operation and Development (OECD) tolerance calculation procedures, and rounding rules. These tolerances are inclusive of imported commodities as well as domestically produced.

V. Conclusion

Therefore, tolerances are modified for residues of fludioxonil, [4-(2,2-difluoro-1,3-benzodioxol-4-yl)-1*H*-pyrrole-3-carbonitrile], in or on mango at 8 ppm and papaya at 5 ppm.

VI. Statutory and Executive Order Reviews

This action modified tolerances 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 tolerance 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).

VII. Congressional Review Act (CRA)

Pursuant to the CRA (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: March 16, 2023.

Daniel Rosenblatt,

Acting Director, Registration Division, Office of Pesticide Programs.

Therefore, for the reasons stated in the preamble, EPA is amending 40 CFR chapter 1 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. In § 180.516, revise the commodities ''mango'' and ''papaya'' in the table in paragraph (a)(1) to read as follows:

§ 180.516 Fludioxonil; tolerances for residues.

* * * * *

TABLE 1 TO PARAGRAPH (a)(1)

Commodity	Parts per million
* * * * *	
Mango	8
* * * * *	
Papaya	5
* * * * *	

* * * * *

[FR Doc. 2023–06457 Filed 3–28–23; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 180

[EPA–HQ–OPP–2022–0069; FRL–10792–01–OCSPP]

Trinexapac-ethyl; Pesticide Tolerance

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This regulation establishes tolerances for residues of trinexapac-ethyl in or on multiple commodities discussed later in this document. Interregional Research Project Number 4 (IR–4) requested these tolerances under the Federal Food, Drug, and Cosmetic Act (FFDCA).

DATES: This regulation is effective March 29, 2023. Objections and requests for hearings must be received on or before May 30, 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–2022–0069, 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 OPP Docket is (202) 566–1744. For the latest status information on EPA/DC services, docket access, visit *https://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT: Daniel Rosenblatt, Acting Director, Registration Division (7505T), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460–0001; main telephone number: (202) 566–1030; email address: *RDFRNotices@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 EPA's tolerance regulations at 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–2022–0069 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 May 30, 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–2022–0069, 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. Summary of Petitioned-For Tolerance

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 petition (PP 1E8966) by IR–4, North Carolina State University, 1730 Varsity Drive, Venture IV, Suite 210, Raleigh, NC 27606. The January 3, 2023, document supersedes the document published on April 28, 2022 (87 FR 25178) (FRL–9410–12–OCSPP). The petition requested that 40 CFR part 180 be amended by establishing tolerances for residues of trinexapac-ethyl in or on the raw agricultural commodities clover, forage at 8 parts per million (ppm) and clover, hay at 15 ppm. As a result of feeding clover that has been treated with trinexapac-ethyl to livestock, the following tolerances were proposed in livestock commodities: cattle, fat and cattle, meat at 0.03 ppm; cattle, meat byproducts at 0.1 ppm; egg at 0.01 ppm; goat, fat and goat, meat at 0.03 ppm; goat, meat byproducts at 0.1 ppm; hog, meat byproducts at 0.1 ppm; milk at 0.01 ppm; horse, meat at 0.03 ppm; poultry, fat and poultry, meat at 0.01 ppm; poultry, meat byproducts at 0.1 ppm; sheep, fat and sheep, meat at 0.03 ppm; and sheep, meat byproducts at 0.1 ppm. That document referenced a summary of the petition, which is available in the docket, *https://www.regulations.gov.* A comment was received in response to the April 28, 2022, notice of filing. EPA's response to the comment is discussed in Unit IV.C.

III. Aggregate Risk Assessment and Determination of Safety

Section 408(b)(2)(A)(i) of FFDCA allows EPA to establish a tolerance (the legal limit for a pesticide chemical residue in or on a food) only if EPA determines that the tolerance is ''safe.'' Section 408(b)(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. Section 408(b)(2)(C) of FFDCA requires EPA to give special consideration to exposure of infants and children to the pesticide chemical residue in establishing a tolerance 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. . . .''

Consistent with FFDCA section 408(b)(2)(D), and the factors specified therein, EPA has reviewed the available scientific data and other relevant information in support of this action. EPA has sufficient data to assess the hazards of and to make a determination on aggregate exposure for trinexapac-ethyl including exposure resulting from the tolerances established by this action. EPA's assessment of exposures and risks associated with trinexapac-ethyl follows.

In an effort to streamline its publications in the **Federal Register**, EPA is not reprinting sections that repeat what has been previously published for tolerance rulemakings for the same pesticide chemical. Where scientific information concerning a particular chemical remains unchanged, the content of those sections would not vary between tolerance rulemakings, and EPA considers referral back to those sections as sufficient to provide an explanation of the information EPA considered in making its safety determination for the new rulemaking.

EPA has previously published tolerance rulemakings for trinexapac-ethyl in which EPA concluded, based on the available information, that there is a reasonable certainty that no harm would result from aggregate exposure to trinexapac-ethyl and established tolerances for residues of that chemical. EPA is incorporating previously published sections from these rulemakings as described further in this rulemaking, as they remain unchanged.

Toxicological profile. For a discussion of the Toxicological Profile of trinexapac-ethyl, see Unit III.A. of the trinexapac-ethyl tolerance rulemaking published in the **Federal Register** of May 20, 2015 (80 FR 28843) (FRL–9926–62).

Toxicological points of departure/Levels of concern. For a summary of the Toxicological Points of Departure/Levels of Concern for trinexapac-ethyl used for human health risk assessment, please reference Unit III.B. of the trinexapac-ethyl tolerance rulemaking published in the **Federal Register** of March 2, 2012 (77 FR 12740) (FRL–9337–9).

Exposure assessment. EPA's dietary exposure assessments have been updated to include the additional exposure from the proposed new regional use on clover as well for associated residues on animal commodities. The assessments were conducted with Dietary Exposure Evaluation Model software using the Food Commodity Intake Database (DEEM–FCID) Version 4.02, which uses the 2005–2010 food consumption data from the United States Department of Agriculture's (USDA's) National Health and Nutrition Examination Survey, What We Eat in America (NHANES/WWEIA). The unrefined acute and chronic dietary exposure assessments used tolerance-level residues, EPA's default processing factors, and assumed 100 percent crop treated (PCT) for the registered commodities.

Drinking water and non-occupational exposures. The drinking water numbers have not changed as a result of the new use on clover. For a detailed summary of the drinking water analysis for trinexapac-ethyl used for the human health risk assessment, please reference Unit III.C.2. of the May 20, 2015, rulemaking.

Trinexapac-ethyl is currently registered for the following uses that could result in residential exposures: residential lawns, athletic fields, parks, and golf courses. For a detailed summary of the non-occupational analysis for trinexapac-ethyl used for the human health risk assessment, please reference Unit III.C.3. of the May 20, 2015, rulemaking.

Cumulative 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.'' Unlike other pesticides for which EPA has followed a cumulative risk approach

based on a common mechanism of toxicity, EPA has not made a common mechanism of toxicity finding as to trinexapac-ethyl and any other substances. For the purposes of this action, therefore, EPA has not assumed that trinexapac-ethyl has a common mechanism of toxicity with other substances.

Safety factor for infants and children. EPA continues to conclude that there are reliable data to support the reduction of the Food Quality Protection Act (FQPA) safety factor from 10X to 1X. See Unit III.D. of the May 20, 2015, rulemaking for a discussion of the Agency's rationale for that determination.

Aggregate risks and determination of safety. EPA determines whether acute and chronic dietary pesticide exposures are safe by comparing dietary exposure estimates to the acute population-adjusted dose (aPAD) and chronic population-adjusted dose (cPAD). Short-, intermediate-, and chronic-term aggregate risks are evaluated by comparing the estimated total food, water, and residential exposure to the appropriate points of departure to ensure that an adequate margin of exposure (MOE) exists.

Acute dietary risks are below the Agency's level of concern of 100% of the aPAD; they are 2.5% of the aPAD for females 13 to 49 years old, the only population group of concern. Chronic dietary risks are below the Agency's level of concern of 100% of the cPAD; they are 6.8% of the cPAD for children 1 to 2 years old, the group with the highest exposure.

Short-term aggregate (average dietary and residential turf exposures) MOEs for adults (235) and youth (4,500) are above EPA's level of concern of 100 and are not of concern. Trinexapac-ethyl is classified as ''not likely to be carcinogenic to humans.'' Therefore, EPA does not expect trinexapac-ethyl to pose a cancer risk from aggregate exposure.

Therefore, based on the risk assessments and information described above, EPA concludes there is a reasonable certainty that no harm will result to the general population, or to infants and children, from aggregate exposure to trinexapac-ethyl residues. More detailed information on this action can be found in the document titled ''Trinexapac-ethyl. Human Health Risk Assessment for the New Use on Clover (Seed Crop).'' in docket ID EPA–HQ–OPP–2022–0069.

IV. Other Considerations

A. Analytical Enforcement Methodology

For a discussion of the available analytical enforcement method, see Unit IV.A. of the May 20, 2015, rulemaking.

B. International Residue Limits

In making its tolerance decisions, EPA seeks to harmonize U.S. tolerances with international standards whenever possible, consistent with U.S. food safety standards and agricultural practices. EPA considers the international maximum residue limits (MRLs) established by the Codex Alimentarius Commission (Codex), as required by FFDCA section 408(b)(4).

There are no established Codex MRLs on clover forage and hay. There are established Codex MRLs for trinexapac-ethyl in or on livestock commodities. The U.S. tolerances are harmonized with Codex MRLs for ruminant and hog meat byproduct at 0.1 ppm. However, the ruminant and swine meat and fat tolerances increased to 0.03 ppm because there is the potential for secondary transfer of trinexapac-ethyl resides in ruminant meat from the new use on clover. Because the U.S. tolerances are higher based on the estimated livestock dietary burden, it is not possible to harmonize with the 0.01 ppm Codex MRL for ruminant and swine meat and fat commodities.

C. Response to Comments

One comment was received on the notice of filing, which opposed EPA establishing the requested tolerances and objected to the presence of pesticide residues on crops. Although the Agency recognizes that some individuals believe that pesticides should be banned on agricultural crops, the existing legal framework provided by section 408 of the FFDCA authorizes EPA to establish tolerances when it determines that the tolerances are safe. Upon consideration of the validity, completeness, and reliability of the available data as well as other factors the FFDCA requires EPA to consider, EPA has determined that the trinexapac-ethyl tolerances are safe. The commenter has provided no information indicating that a safety determination cannot be supported.

V. Conclusion

Therefore, tolerances are established for residues of trinexapac-ethyl in or on egg at 0.01 ppm; milk at 0.01 ppm; poultry, fat at 0.01 ppm; poultry, meat at 0.01 ppm; and poultry, meat byproducts at 0.1 ppm. The following established tolerances for residues of trinexapac-ethyl are revised to the specified levels: cattle, fat at 0.03 ppm; cattle, meat at 0.03 ppm; cattle, meat byproducts at 0.1 ppm; goat, fat at 0.03 ppm; goat, meat at 0.03 ppm; goat, meat byproducts at 0.1 ppm; hog, meat byproducts at 0.1 ppm; horse, meat at 0.03 ppm; sheep, fat at 0.03 ppm; sheep, meat at 0.03 ppm; and sheep, meat byproducts at 0.1 ppm. Additionally, tolerances with regional registrations are established for residues of trinexapac-ethyl in or on clover, forage at 8 ppm and clover, hay at 15 ppm.

As a housekeeping measure, EPA is removing the word ''imported'' from the commodity entry for ''Poppy, seed imported'', as unnecessary and redundant. Moreover, use of that adjective is not consistent with how EPA typically identifies tolerances for residues in or on imported commodities. The associated footnote 1 indicates that there are no U.S. registrations for use of trinexapac-ethyl on poppy seed; thus, the tolerance itself is intended to cover residues on imported commodities. Additionally, footnote 1 is being added to the table as identified in the March 15, 2018, final tolerance rule. The changes have no substantive effect and can be accomplished without further notice and comment.

VI. Statutory and Executive Order Reviews

This action establishes a tolerance 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 to 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 tolerances 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).

VII. 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: March 14, 2023.

Daniel Rosenblatt,

Acting Director, Registration Division, Office of Pesticide Programs.

Therefore, for the reasons stated in the preamble, EPA is amending 40 CFR chapter 1 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. Revise § 180.662 to read as follows:

§ 180.662 Trinexapac-ethyl; tolerances for residues.

(a) *General.* Tolerances are established for residues of the plant growth regulator, trinexapac-ethyl, including its metabolites and degradates, in or on the commodities in table 1 to this paragraph (a). Compliance with the tolerance levels specified in table 1 is to be determined by measuring only the free and conjugated forms of both trinexapac-ethyl, ethyl 4-(cyclopropylhydroxymethylene)-3,5-dioxocyclohexanecarboxylate and trinexapac, 4-(cyclopropylhydroxymethylene)-3,5-dioxocyclohexanecarboxylic acid, calculated as the stoichiometric equivalent of trinexapac-ethyl, in or on the commodity.

TABLE 1 TO PARAGRAPH (a)

Commodity	Parts per million
Barley, bran	2.5
Barley, grain	2.0
Barley, hay	0.8
Barley, straw	0.4
Cattle, fat	0.03
Cattle, meat	0.03
Cattle, meat byproducts	0.1
Egg	0.01
Goat, fat	0.03
Goat, meat	0.03
Goat, meat byproducts	0.1
Grass, forage	1.5
Grass, hay	4.0
Grass, seed screenings	40.0
Grass, straw	10.0
Hog, fat	0.02
Hog, meat	0.02
Hog, meat by-products	0.1
Horse, fat	0.02
Horse, meat	0.03
Horse, meat byproducts	0.04
Milk	0.01
Oat, forage	1.0
Oat, grain	4.0
Oat, hay	1.5
Oat, straw	0.9
Poppy, seed [1]	8
Poultry, fat	0.01
Poultry, meat	0.01
Poultry, meat byproducts	0.1
Rice, bran	1.5
Rice, grain	0.4
Rice, straw	0.07
Rice, wild, grain	0.4
Rye, bran	6.0
Rye, grain	4.0
Rye, hay	1.5
Rye, straw	0.9
Sheep, fat	0.03
Sheep, meat	0.03
Sheep, meat byproducts	0.1
Sugarcane, cane	1.5
Sugarcane, molasses	5
Wheat, bran	6.0
Wheat, forage	1.0
Wheat, grain	4.0
Wheat, hay	1.5
Wheat, middlings	10.5
Wheat, straw	0.9

[1] There are no U.S. registrations for Poppy, seed as of March 15, 2018.

(b) [Reserved]

(c) *Tolerances with regional registrations.* Tolerances with regional registrations, as defined in § 180.1, are established for residues of trinexapac-ethyl, including its metabolites and degradates, in or on the commodities in table 2 to this paragraph (c). Compliance with the tolerance levels specified in table 2 is to be determined by measuring only the free and conjugated forms of both trinexapac-ethyl, ethyl 4-(cyclopropylhydroxymethylene)-3,5-dioxocyclohexanecarboxylate and trinexapac, 4-(cyclopropylhydroxymethylene)-3,5-dioxocyclohexanecarboxylic acid, calculated as the stoichiometric equivalent of trinexapac-ethyl, in or on the commodity.

TABLE 2 TO PARAGRAPH (c)

Commodity	Parts per million
Clover, forage	8
Clover, hay	15

(d) [Reserved]

[FR Doc. 2023–06409 Filed 3–28–23; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 300

[EPA–HQ–OLEM–2022–0679; FRL–10795–01–OLEM]

National Priorities List

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (''CERCLA'' or ''the Act''), as amended, requires that the National Oil and Hazardous Substances Pollution Contingency Plan (''NCP'') include a list of national priorities among the known releases or threatened releases of hazardous substances, pollutants or contaminants throughout the United States. The National Priorities List (''NPL'') constitutes this list. The NPL is intended primarily to guide the Environmental Protection Agency (''the EPA'' or ''the agency'') in determining which sites warrant further investigation. These further investigations will allow the EPA to assess the nature and extent of public health and environmental risks associated with the site and to determine what CERCLA-financed remedial action(s), if any, may be appropriate. This rule adds one site to the General Superfund section of the NPL.

DATES: The rule is effective on April 28, 2023.

ADDRESSES: Contact information for the EPA Headquarters: Docket Coordinator, Headquarters; U.S. Environmental Protection Agency; CERCLA Docket Office; 1301 Constitution Avenue NW, William Jefferson Clinton Building West, Room 3334, Washington, DC 20004, (202) 566–0276.

FOR FURTHER INFORMATION CONTACT: Terry Jeng, Site Assessment and Remedy Decisions Branch, Assessment and Remediation Division, Office of Superfund Remediation and Technology Innovation (Mail code 5204T), U.S. Environmental Protection Agency; 1301 Constitution Avenue NW, Washington, DC 20460, telephone number: (202) 566–1048, email address: *jeng.terry@epa.gov*.

The contact information for the regional dockets is as follows:

- Holly Inglis, Region 1 (CT, ME, MA, NH, RI, VT), U.S. EPA, Superfund Records and Information Center, 5 Post Office Square, Suite 100, Boston, MA 02109–3912; (617) 918–1413.
- James Desir, Region 2 (NJ, NY, PR, VI), U.S. EPA, 290 Broadway, New York, NY 10007–1866; (212) 637–4342.
- Lorie Baker, Region 3 (DE, DC, MD, PA, VA, WV), U.S. EPA, 4 Penn Center, 1600 John F. Kennedy Boulevard, Mailcode 3SD12, Philadelphia, PA 19103 (215) 814–3355.
- Sandra Bramble, Region 4 (AL, FL, GA, KY, MS, NC, SC, TN), U.S. EPA, 61 Forsyth Street SW, Mailcode 9T25, Atlanta, GA 30303; (404) 562–8926.
- Todd Quesada, Region 5 (IL, IN, MI, MN, OH, WI), U.S. EPA Superfund Division Librarian/SFD Records Manager SRC–7J, Metcalfe Federal Building, 77 West Jackson Boulevard, Chicago, IL 60604; (312) 886–4465.
- Michelle Delgado-Brown, Region 6 (AR, LA, NM, OK, TX), U.S. EPA, 1201 Elm Street, Suite 500, Mailcode SED, Dallas, TX 75270; (214) 665–3154.
- Kumud Pyakuryal, Region 7 (IA, KS, MO, NE), U.S. EPA, 11201 Renner Blvd., Mailcode SUPRSTAR, Lenexa, KS 66219; (913) 551–7956.
- David Fronczak, Region 8 (CO, MT, ND, SD, UT, WY), U.S. EPA, 1595 Wynkoop Street, Mailcode 8SEM–EM–P, Denver, CO 80202–1129; (303) 312–6096.
- Eugenia Chow, Region 9 (AZ, CA, HI, NV, AS, GU, MP), U.S. EPA, 75 Hawthorne Street, Mailcode SFD 6–1, San Francisco, CA 94105; (415) 972–3160.
- Ken Marcy, Region 10 (AK, ID, OR, WA), U.S. EPA, 288 Martin Street, Suite 309, Blaine, WA 98230; (360) 366–8868.

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Background

A. What are CERCLA and SARA?

In 1980, Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9601–9675 (''CERCLA'' or ''the Act''), in response to the dangers of uncontrolled releases or threatened releases of hazardous substances, and releases or substantial threats of releases into the environment of any pollutant or contaminant that may present an imminent or substantial danger to the public health or welfare. CERCLA was amended on October 17, 1986, by the Superfund Amendments and Reauthorization Act (''SARA''), Public Law 99–499, 100 Stat. 1613 *et seq.*

B. What is the NCP?

To implement CERCLA, the EPA promulgated the revised National Oil and Hazardous Substances Pollution Contingency Plan (''NCP''), 40 CFR part 300, on July 16, 1982 (47 FR 31180), pursuant to CERCLA section 105 and Executive Order 12316 (46 FR 42237, August 20, 1981). The NCP sets guidelines and procedures for responding to releases and threatened releases of hazardous substances, or releases or substantial threats of releases into the environment of any pollutant or contaminant that may present an imminent or substantial danger to the public health or welfare. The EPA has revised the NCP on several occasions. The most recent comprehensive revision was on March 8, 1990 (55 FR 8666).

As required under section 105(a)(8)(A) of CERCLA, the NCP also

includes ''criteria for determining priorities among releases or threatened releases throughout the United States for the purpose of taking remedial action and, to the extent practicable, taking into account the potential urgency of such action, for the purpose of taking removal action.'' ''Removal'' actions are defined broadly and include a wide range of actions taken to study, clean up, prevent or otherwise address releases and threatened releases of hazardous substances, pollutants or contaminants (42 U.S.C. 9601(23)).

C. What is the National Priorities List (NPL)?

The NPL is a list of national priorities among the known or threatened releases of hazardous substances, pollutants or contaminants throughout the United States. The list, which is appendix B of the NCP (40 CFR part 300), was required under section 105(a)(8)(B) of CERCLA, as amended. Section 105(a)(8)(B) defines the NPL as a list of ''releases'' and the highest priority ''facilities'' and requires that the NPL be revised at least annually. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation to assess the nature and extent of public health and environmental risks associated with a release of hazardous substances, pollutants or contaminants. The NPL is of only limited significance, however, as it does not assign liability to any party or to the owner of any specific property. Also, placing a site on the NPL does not mean that any remedial or removal action necessarily need be taken.

For purposes of listing, the NPL includes two sections, one of sites that are generally evaluated and cleaned up by the EPA (the ''General Superfund section'') and one of sites that are owned or operated by other Federal agencies (the ''Federal Facilities section''). With respect to sites in the Federal Facilities section, these sites are generally being addressed by other Federal agencies. Under Executive Order 12580 (52 FR 2923, January 29, 1987) and CERCLA section 120, each Federal agency is responsible for carrying out most response actions at facilities under its own jurisdiction, custody or control, although the EPA is responsible for preparing a Hazard Ranking System (''HRS'') score and determining whether the facility is placed on the NPL.

D. How are sites listed on the NPL?

There are three mechanisms for placing sites on the NPL for possible remedial action (see 40 CFR 300.425(c) of the NCP): (1) A site may be included on the NPL if it scores sufficiently high on the HRS, which the EPA promulgated as appendix A of the NCP (40 CFR part 300). The HRS serves as a screening tool to evaluate the relative potential of uncontrolled hazardous substances, pollutants or contaminants to pose a threat to human health or the environment. On December 14, 1990 (55 FR 51532), the EPA promulgated revisions to the HRS partly in response to CERCLA section 105(c), added by SARA. On January 9, 2017 (82 FR 2760), a subsurface intrusion component was added to the HRS to enable the EPA to consider human exposure to hazardous substances or pollutants and contaminants that enter regularly occupied structures through subsurface intrusion when evaluating sites for the NPL. The current HRS evaluates four pathways: ground water, surface water, soil exposure and subsurface intrusion, and air. As a matter of agency policy, those sites that score 28.50 or greater on the HRS are eligible for the NPL. (2) Each state may designate a single site as its top priority to be listed on the NPL, without any HRS score. This provision of CERCLA requires that, to the extent practicable, the NPL include one facility designated by each state as the greatest danger to public health, welfare or the environment among known facilities in the state. This mechanism for listing is set out in the NCP at 40 CFR 300.425(c)(2). (3) The third mechanism for listing, included in the NCP at 40 CFR 300.425(c)(3), allows certain sites to be listed without any HRS score, if all of the following conditions are met:

- The Agency for Toxic Substances and Disease Registry (ATSDR) of the U.S. Public Health Service has issued a health advisory that recommends dissociation of individuals from the release.
- The EPA determines that the release poses a significant threat to public health.
- The EPA anticipates that it will be more cost-effective to use its remedial authority than to use its removal authority to respond to the release.

The EPA promulgated an original NPL of 406 sites on September 8, 1983 (48 FR 40658) and generally has updated it at least annually.

E. What happens to sites on the NPL?

A site may undergo remedial action financed by the Trust Fund established under CERCLA (commonly referred to as the ''Superfund'') only after it is placed on the NPL, as provided in the NCP at 40 CFR 300.425(b)(1). (''Remedial actions'' are those ''consistent with a permanent remedy, taken instead of or in addition to removal actions'' (40 CFR 300.5).) However, under 40 CFR 300.425(b)(2), placing a site on the NPL ''does not imply that monies will be expended.'' The EPA may pursue other appropriate authorities to respond to the releases, including enforcement action under CERCLA and other laws.

F. Does the NPL define the boundaries of sites?

The NPL does not describe releases in precise geographical terms; it would be neither feasible nor consistent with the limited purpose of the NPL (to identify releases that are priorities for further evaluation), for it to do so. Indeed, the precise nature and extent of the site are typically not known at the time of listing.

Although a CERCLA ''facility'' is broadly defined to include any area where a hazardous substance has ''come to be located'' (CERCLA section 101(9)), the listing process itself is not intended to define or reflect the boundaries of such facilities or releases. Of course, HRS data (if the HRS is used to list a site) upon which the NPL placement was based will, to some extent, describe the release(s) at issue. That is, the NPL site would include all releases evaluated as part of that HRS analysis.

When a site is listed, the approach generally used to describe the relevant release(s) is to delineate a geographical area (usually the area within an installation or plant boundaries) and identify the site by reference to that area. However, the NPL site is not necessarily coextensive with the boundaries of the installation or plant, and the boundaries of the installation or plant are not necessarily the ''boundaries'' of the site. Rather, the site consists of all contaminated areas within the area used to identify the site, as well as any other location where that contamination has come to be located, or from where that contamination came.

In other words, while geographic terms are often used to designate the site (*e.g.,* the ''Jones Co. Plant site'') in terms of the property owned by a particular party, the site, properly understood, is not limited to that property (*e.g.,* it may extend beyond the property due to contaminant migration), and conversely may not occupy the full extent of the property (*e.g.,* where there are uncontaminated parts of the identified property, they may not be, strictly speaking, part of the ''site''). The ''site'' is thus neither equal to, nor confined by, the boundaries of any specific property that may give the site its name, and the name itself should not be read to imply that this site is coextensive with the entire area within the property

boundary of the installation or plant. In addition, the site name is merely used to help identify the geographic location of the contamination; and is not meant to constitute any determination of liability at a site. For example, the name ''Jones Co. plant site,'' does not imply that the Jones Company is responsible for the contamination located on the plant site.

EPA regulations provide that the remedial investigation (''RI'') ''is a process undertaken . . . to determine the nature and extent of the problem presented by the release'' as more information is developed on site contamination, and which is generally performed in an interactive fashion with the feasibility study (''FS'') (40 CFR 300.5). During the RI/FS process, the release may be found to be larger or smaller than was originally thought, as more is learned about the source(s) and the migration of the contamination. However, the HRS inquiry focuses on an evaluation of the threat posed and therefore the boundaries of the release need not be exactly defined. Moreover, it generally is impossible to discover the full extent of where the contamination ''has come to be located'' before all necessary studies and remedial work are completed at a site. Indeed, the known boundaries of the contamination can be expected to change over time. Thus, in most cases, it may be impossible to describe the boundaries of a release with absolute certainty.

Further, as noted previously, NPL listing does not assign liability to any party or to the owner of any specific property. Thus, if a party does not believe it is liable for releases on discrete parcels of property, it can submit supporting information to the agency at any time after it receives notice it is a potentially responsible party.

For these reasons, the NPL need not be amended as further research reveals more information about the location of the contamination or release.

G. How are sites removed from the NPL?

The EPA may delete sites from the NPL where no further response is appropriate under Superfund, as explained in the NCP at 40 CFR 300.425(e). This section also provides that the EPA shall consult with states on proposed deletions and shall consider whether any of the following criteria have been met:

(i) Responsible parties or other persons have implemented all appropriate response actions required;

(ii) All appropriate Superfund-financed response has been implemented and no further response action is required; or

(iii) The remedial investigation has shown the release poses no significant threat to public health or the environment and taking of remedial measures is not appropriate.

H. May the EPA delete portions of sites from the NPL as they are cleaned up?

In November 1995, the EPA initiated a policy to delete portions of NPL sites where cleanup is complete (60 FR 55465, November 1, 1995). Total site cleanup may take many years, while portions of the site may have been cleaned up and made available for productive use.

I. What is the Construction Completion List (CCL)?

The EPA also has developed an NPL construction completion list (''CCL'') to simplify its system of categorizing sites and to better communicate the successful completion of cleanup activities (58 FR 12142, March 2, 1993). Inclusion of a site on the CCL has no legal significance.

Sites qualify for the CCL when: (1) any necessary physical construction is complete, whether or not final cleanup levels or other requirements have been achieved; (2) the EPA has determined that the response action should be limited to measures that do not involve construction (*e.g.,* institutional controls); or (3) the site qualifies for deletion from the NPL. For more information on the CCL, see the EPA's internet site at *https://www.epa.gov/superfund/construction-completions-national-priorities-list-npl-sites-number.*

J. What is the Sitewide Ready for Anticipated Use measure?

The Sitewide Ready for Anticipated Use measure represents important Superfund accomplishments, and the measure reflects the high priority the EPA places on considering anticipated future land use as part of the remedy selection process. See Guidance for Implementing the Sitewide Ready-for-Reuse Measure, May 24, 2006, OSWER 9365.0–36. This measure applies to final and deleted sites where construction is complete, all cleanup goals have been achieved, and all institutional or other controls are in place. The EPA has been successful on many occasions in carrying out remedial actions that ensure protectiveness of human health and the environment for current and future land uses, in a manner that allows contaminated properties to be restored to environmental and economic vitality. For further information, please go to *https://www.epa.gov/superfund/about-superfund-cleanup-process#reuse.*

K. What is state/tribal correspondence concerning NPL listing?

In order to maintain close coordination with states and tribes in the NPL listing decision process, the EPA's policy is to determine the position of the states and tribes regarding sites that the EPA is considering for listing. This consultation process is outlined in two memoranda that can be found at the following website: *https://www.epa.gov/superfund/statetribal-correspondence-concerning-npl-site-listing.*

The EPA has improved the transparency of the process by which state and tribal input is solicited. The EPA is using the web and where appropriate more structured state and tribal correspondence that: (1) Explains the concerns at the site and the EPA's rationale for proceeding; (2) requests an explanation of how the state intends to address the site if placement on the NPL is not favored; and (3) emphasizes the transparent nature of the process by informing states that information on their responses will be publicly available.

A model letter and correspondence between the EPA and states and tribes where applicable, is available on the EPA's website at *https://www.epa.gov/superfund/statetribal-correspondence-concerning-npl-site-listing.*

II. Availability of Information to the Public

A. May I review the documents relevant to this final rule?

Yes, documents relating to the evaluation and scoring of the sites in this final rule are contained in dockets located both at the EPA headquarters and in the EPA regional offices.

An electronic version of the public docket is available through *https://www.regulations.gov* (see table below for docket identification numbers). Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facilities identified in section II.D.

DOCKET IDENTIFICATION NUMBERS BY SITE

Site name	City/county, state	Docket ID No.
East Basin Road Groundwater	New Castle, DE	EPA–HQ–OLEM–2022–0679

B. What documents are available for review at the EPA Headquarters docket?

The headquarters docket for this rule contains the HRS score sheets, the documentation record describing the information used to compute the score, a list of documents referenced in the documentation record for each site and any other information used to support the NPL listing of the site. These documents are also available online at *https://www.regulations.gov.*

C. What documents are available for review at the EPA regional dockets?

The EPA regional dockets contain all the information in the headquarters docket, plus the actual reference documents containing the data principally relied upon by the EPA in calculating or evaluating the HRS score. These reference documents are available only in the regional dockets.

D. How do I access the documents?

You may view the documents that support this rule online at *https://www.regulations.gov* or by contacting the EPA HQ docket or appropriate regional docket. The hours of operation for the headquarters docket are from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding Federal holidays. Please contact the individual regional dockets for hours. For addresses for the headquarters and regional dockets, see **ADDRESSES** section in the beginning portion of this preamble.

E. How may I obtain a current list of NPL sites?

You may obtain a current list of NPL sites via the internet at *https://www.epa.gov/superfund/national-priorities-list-npl-sites-site-name.*

III. Contents of This Final Rule

A. Additions to the NPL

This final rule adds the following site to the General Superfund section of the NPL. The site is being added to the NPL based on an HRS score of 28.50 or above.

GENERAL SUPERFUND SECTION

State	Site name	City/county
DE	East Basin Road Groundwater	New Castle.

B. What did the EPA do with the public comments it received?

The EPA reviewed all comments received on the site in this rule and responded to all relevant comments. The EPA is adding one site to the NPL in this final rule. The East Basin Road Groundwater site in New Castle, DE, was proposed for addition to the NPL on September 9, 2022 (87 FR 55342).

Comments on the East Basin Road Groundwater site are being addressed in a response to comment support document available in the public docket concurrently with this rule. To view public comments on this site, as well as EPA's response, please refer to the support document available at *https://www.regulations.gov.*

IV. 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 not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review.

B. Paperwork Reduction Act (PRA)

This action does not impose an information collection burden under the PRA. This rule does not contain any information collection requirements that require approval of the OMB.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities. This rule listing sites on the NPL does not impose any obligations on any group, including small entities. This rule also does not establish standards or requirements that any small entity must meet and imposes no direct costs on any small entity. Whether an entity, small or otherwise, is liable for response costs for a release of hazardous substances depends on whether that entity is liable under CERCLA 107(a). Any such liability exists regardless of whether the site is listed on the NPL through this rulemaking.

D. Unfunded Mandates Reform Act (UMRA)

This 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. This action imposes no enforceable duty on any state, local, or tribal governments or the private sector. Listing a site on the NPL does not itself impose any costs. Listing does not mean that the EPA necessarily will undertake remedial action. Nor does listing require any action by a private party, state, local, or tribal governments or determine liability for response costs. Costs that arise out of site responses result from future site-specific decisions regarding what actions to take, not directly from the act of placing a site on the NPL.

E. Executive Order 13132: Federalism

This final rule 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 action does not have tribal implications as specified in Executive Order 13175. Listing a site on the NPL does not impose any costs on a tribe or require a tribe to take remedial action. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the 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 action is not subject to Executive Order 13045 because this action itself is procedural in nature (adds sites to a list) and does not, in and of itself, provide protection from environmental health and safety risks. Separate future regulatory actions are required for mitigation of environmental health and safety risks.

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

This 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 (NTTAA)

This rulemaking does not involve technical standards.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations because it does not affect the level of protection provided to human health or the environment. As discussed in section I.C. of the preamble to this action, the NPL is a list of national priorities. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation to assess the nature and extent of public health and environmental risks associated with a release of hazardous substances, pollutants or contaminants. The NPL is of only limited significance as it does not assign liability to any party. Also, placing a site on the NPL does not mean that any remedial or removal action necessarily need be taken.

K. Congressional Review Act

This action is subject to the Congressional Review Act (CRA), and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

Provisions of the CRA or section 305 of CERCLA may alter the effective date of this regulation. Under 5 U.S.C. 801(b)(1), a rule shall not take effect, or continue in effect, if Congress enacts (and the President signs) a joint resolution of disapproval, described under section 802. Another statutory provision that may affect this rule is CERCLA section 305, which provides for a legislative veto of regulations promulgated under CERCLA. Although *INS* v. *Chadha,* 462 U.S. 919,103 S. Ct. 2764 (1983), and *Bd. of Regents of the University of Washington* v. *EPA,* 86 F.3d 1214,1222 (D.C. Cir. 1996), cast the validity of the legislative veto into question, the EPA has transmitted a copy of this regulation to the Secretary of the Senate and the Clerk of the House of Representatives.

If action by Congress under either the CRA or CERCLA section 305 calls the effective date of this regulation into question, the EPA will publish a document of clarification in the **Federal Register**.

List of Subjects in 40 CFR Part 300

Environmental protection, Air pollution control, Chemicals, Hazardous substances, Hazardous waste, Intergovernmental relations, Natural resources, Oil pollution, Penalties, Reporting and recordkeeping requirements, Superfund, Water pollution control, Water supply.

Barry N. Breen,

Acting Assistant Administrator, Office of Land and Emergency Management.

For the reasons set out in the preamble, title 40, chapter I, part 300, of the Code of Federal Regulations is amended as follows:

PART 300—NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN

■ 1. The authority citation for part 300 continues to read as follows:

Authority: 33 U.S.C. 1251 *et seq.;* 42 U.S.C. 9601–9657; E.O. 13626, 77 FR 56749, 3 CFR, 2013 Comp., p. 306; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; E.O. 12580, 52 FR 2923, 3 CFR, 1987 Comp., p. 193.

■ 2. Amend table 1 of appendix B to part 300 by adding the entry ''DE, East Basin Road Groundwater'' in alphabetical order by State to read as follows:

Appendix B to Part 300—National Priorities List

TABLE 1—GENERAL SUPERFUND SECTION

State	Site name	City/county	Notes [a]
*	* * * * * *		
DE	East Basin Road Groundwater	New Castle.	
*	* * * * * *		

[a] A = Based on issuance of health advisory by Agency for Toxic Substances and Disease Registry (if scored, HRS score need not be greater than or equal to 28.50).

* * * * *

[FR Doc. 2023–06234 Filed 3–28–23; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 423

[EPA–HQ–OW–2009–0819; FRL–8794.1–02–OW]

RIN 2040–AG28

Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category—Initial Notification Date Extension

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule.

SUMMARY: The Environmental Protection Agency (EPA or agency) is taking direct final action to extend the date for existing coal-fired power plants to submit a notice of planned participation (NOPP) for the permanent cessation of coal combustion subcategory in the 2020 Steam Electric Reconsideration Rule.

DATES: This rule is effective on May 30, 2023 without further notice, unless EPA receives adverse comment by April 28, 2023. If EPA receives adverse comment, the Agency will publish a timely withdrawal in the **Federal Register** informing the public that the rule will not take effect.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–HQ–OW–2009–0819 at *https://www.regulations.gov.* Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from *Regulations.gov.* EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. 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). For additional submission methods, the full EPA public comment policy, information about CBI and multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets.* All documents in the docket are listed on the *https://www.regulations.gov* website. Although listed in the index, some information is not publicly available, *e.g.,* CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available electronically through *https://www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: Richard Benware, Engineering and Analysis Division Office of Water (Mail Code 4303T), Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington, DC 20460; telephone number: 202–566–1369; email address: *benware.richard@epa.gov.* Additional information is also available online at *https://www.epa.gov/eg/2021-supplemental-steam-electric-rulemaking.*

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Why is EPA using a direct final rule?

EPA is taking direct final action because the agency views this as a noncontroversial action and anticipates no adverse comment because the rule extends the date for existing coal-fired power plants to submit a NOPP in the 2020 rule's (85 FR 64650, October 13, 2020) subcategory for electric generating units (EGUs) permanently ceasing coal combustion by December 31, 2028, from October 13, 2021, to June 27, 2023. This direct final rule does not otherwise amend 40 CFR part 423 in any way. In the ''Proposed Rules'' section of this issue of the **Federal Register**, however, EPA is publishing a separate document that will serve as the proposed rulemaking to extend the initial notification date if adverse comments are received on this direct final rule. EPA will not institute a second comment period on this action. Any parties interested in commenting must do so at this time. For further information about commenting on this rule, see the **ADDRESSES** section of this document.

If EPA receives adverse comment on this direct final rule, it will publish a timely withdrawal in the **Federal Register** informing the public that this direct final rule will not take effect. EPA would address all public comments in any subsequent final rule based on the proposed rule.

II. Does this action apply to me?

Entities potentially regulated by this action include:

Category	Example of regulated entity	North American Industry Classification System (NAICS) code
Industry	Electric Power Generation Facilities—Electric Power Generation	22111
	Electric Power Generation Facilities—Fossil Fuel Electric Power Generation	221112

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table includes the types of entities that EPA is now aware could potentially be regulated by this action. Other types of entities not included could also be regulated. To determine whether your entity is regulated by this action, you should carefully examine the applicability criteria found in 40 CFR 423.10 (Applicability). If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the **FOR FURTHER INFORMATION CONTACT** section of this preamble.

III. What is the agency's authority for taking this action?

The authority for this rule is the Federal Water Pollution Control Act, 33 U.S.C. 1251 *et seq.,* including sections 101; 301; 304(b), (c), (e), and (g); 306; 307; 308 and 501.

IV. Background

EPA promulgated the Steam Electric Reconsideration Rule in 2020. In the

2020 rule, EPA established a subcategory for EGUs permanently ceasing coal combustion by December 31, 2028. For these EGUs, less stringent total suspended solids limitations and standards were established for discharges of pollutants found in flue gas desulfurization (FGD) wastewater and bottom ash (BA) transport water. These limitations and standards were based on the use of surface impoundments. In order to participate in this subcategory, facilities had to submit a NOPP to their permitting authority or control authority by October 13, 2021, and subsequently submit annual progress reports on the steps taken to achieve permanent cessation of coal combustion.[1] After the October 13, 2021 NOPP date had passed, EPA learned in meetings with trade associations and utilities that additional facilities wish to avail themselves of the compliance pathway for EGUs seeking to retire or convert to a non-coal fuel source by December 31, 2028, but were unable to make that commitment by October 13, 2021.

V. What action is EPA taking?

Based on the recent information submitted to EPA suggesting that there are likely additional EGUs seeking to permanently cease coal combustion by December 31, 2028, EPA is extending the NOPP date in 40 CFR 423.19(f) to June 27, 2023. This direct final rule does not change any other dates for the reporting and recordkeeping requirements of section 423.19, nor does it make any other changes to 40 CFR part 423.

Elsewhere in this **Federal Register** issue, EPA is proposing certain revisions to strengthen the steam electric effluent guidelines. That document proposes that EPA would retain the subcategory for EGUs permanently ceasing coal combustion by December 31, 2028. EPA is using the same docket for this action as for the proposed rulemaking, and thus the agency requests that any comments on this direct final action be submitted separately from comments on the broader proposed rulemaking and contain language that explicitly denotes they are intended to be for this direct final action relating solely to the NOPP date. Where it is not clear that the comment relates to the extension of the NOPP date, EPA may consider it to be a comment on the broader proposed rulemaking rather than this action. To the extent that a comment explicitly indicates that it is being submitted on this direct final rule, EPA will not consider items on any topic other than the extension of the NOPP date for the permanent cessation of coal combustion by 2028 subcategory. Any other comments will be considered outside the scope of this action; if the comments are intended for the companion proposal, they should be provided separately.

[1] While it is also possible for facilities to use the transfer provisions of 40 CFR 423.13(o) to transfer into this subcategory from the voluntary incentives program or low utilization EGU subcategory, EPA is only aware of six facilities which have elected to participate in these programs.

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

Under Executive Order 12866 (58 FR 51735; October 4, 1993) and Executive Order 13563 (76 FR 3821; January 21, 2011), this action is not a ''significant regulatory action'' and is, therefore, not subject to review by the Office of Management and Budget (OMB). Nevertheless, since this is a companion action to a proposed rulemaking which is a significant regulatory action, EPA has provided this action to OMB to assist with review of the companion proposal.

B. Paperwork Reduction Act (PRA)

This action does not impose an information collection burden under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* OMB has previously approved the information collection activities contained in the existing regulations and has assigned OMB control number 2040–0004. This rule contains no new requirements for reporting and recordkeeping.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, EPA concludes that the impact of concern for this rule is any significant adverse economic impact on small entities and that the agency is certifying that this rule will not have a significant economic impact on a substantial number of small entities because the rule has no net burden on the small entities subject to the rule. EPA is limiting its changes to the date that a facility may submit an initial notification to the permitting or control authority. The agency has therefore concluded that this action will have no net regulatory burden for all directly regulated small entities.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandate as described in Unfunded Mandates Reform Act, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local or tribal governments, or the private sector.

E. Executive Order 13132: Federalism

This action does not have significant federalism implications under Executive Order 13132, entitled ''Federalism'' (64 FR 43255; August 10, 1999). 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 action does not create new binding legal requirements that substantially and directly affect Tribes under Executive Order 13175, entitled ''Consultation and Coordination with Indian Tribal Governments'' (65 FR 67249; November 9, 2000). This action does not have significant federalism implications under Executive Order 13132, entitled ''Federalism'' (64 FR 43255; August 10, 1999). 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.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

EPA interprets Executive Order 13045, entitled ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997), 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 action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

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), because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act (NTTAA)

This action does not involve technical standards; thus, the requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

EPA believes that this action is not subject to Executive Order 12898, entitled ''Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations'' (59 FR 7629; February 16, 1994), because it does not establish an environmental health or safety standard. This regulatory action is a minor date change for filing a notice contained in a previously promulgated regulatory action and does not have any impact on human health or the environment.

K. Congressional Review Act (CRA)

This action is subject to the Congressional Review Act, and EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 423

Environmental protection, Electric power generation, Power facilities, Waste treatment and disposal, Water pollution control.

Michael S. Regan,

Administrator.

For the reasons stated in the preamble, the Environmental Protection Agency amends 40 CFR part 423 as follows:

PART 423—STEAM ELECTRIC POWER GENERATING POINT SOURCE CATEGORY

■ 1. The authority citation for part 423 continues to read as follows:

Authority: Secs. 101; 301; 304(b), (c), (e), and (g); 306; 307; 308 and 501, Clean Water Act (Federal Water Pollution Control Act Amendments of 1972, as amended; 33 U.S.C. 1251; 1311; 1314(b), (c), (e), and (g); 1316; 1317; 1318 and 1361).

■ 2. Amend § 423.19 by revising paragraph (f)(1) to read as follows:

§ 423.19 Reporting and recordkeeping requirements.

* * * * *

(f) * * *

(1) *Notice of Planned Participation.* For sources seeking to qualify as an electric generating unit that will achieve permanent cessation of coal combustion by December 31, 2028, under this part, a Notice of Planned Participation shall be made to the permitting authority, or to the control authority in the case of an indirect discharger, no later than June 27, 2023.

* * * * *

[FR Doc. 2023–04985 Filed 3–28–23; 8:45 am]

BILLING CODE 6560–50–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 622

[Docket No. 130403320–4891–02]

RTID 0648–XC842

Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Snapper-Grouper Fishery of the South Atlantic; 2023–2024 Recreational Fishing Season for Black Sea Bass

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Temporary rule; recreational season length.

SUMMARY: NMFS announces that the recreational fishing season for black sea bass in the exclusive economic zone (EEZ) of the South Atlantic will extend throughout the species' 2023–2024 fishing year. Announcing the length of recreational season for black sea bass is one of the accountability measures (AMs) for the recreational sector. This announcement allows recreational fishers to maximize their opportunity to harvest the recreational annual catch limit (ACL) for black sea bass while NMFS manages harvest to protect the black sea bass resource.

DATES: This rule is effective from April 1, 2023, through March 31, 2024, unless changed by subsequent notification in the **Federal Register**.

FOR FURTHER INFORMATION CONTACT: Nikhil Mehta, NMFS Southeast Regional Office, telephone: 727–824–5305, email: *nikhil.mehta@noaa.gov*.

SUPPLEMENTARY INFORMATION: The South Atlantic snapper-grouper fishery includes black sea bass south of 35°15.19′ N latitude, due east of Cape Hatteras Light, North Carolina, and is managed under the Fishery Management Plan for the Snapper-Grouper Fishery of the South Atlantic Region (FMP). The South Atlantic Fishery Management Council prepared the FMP and NMFS implements the FMP under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) by regulations at 50 CFR part 622.

The recreational fishing year for black sea bass is April 1 through March 31. The recreational AM for black sea bass requires that before the April 1 start date of each recreational fishing year, NMFS projects the length of the recreational fishing season based on when NMFS projects the recreational ACL will be met, and announces the recreational season end date in the **Federal Register** (50 CFR 622.193(e)(2)). The purpose of this AM is to allow recreational fishers to maximize their opportunity to harvest the recreational ACL through a more predictable recreational season while NMFS manages harvest within the recreational ACL to protect the stock from experiencing adverse biological consequences.

The recreational ACL for black sea bass during the 2023–2024 fishing year is 310,602 lb (140,887 kg) in gutted weight, or 366,510 lb (166,246 kg) in round weight (50 CFR 622.193(e)(2)).

NMFS estimates that recreational landings for the 2023–2024 fishing year will be less than the 2023–2024 recreational ACL. To make this determination, NMFS compared recreational landings of black sea bass in the last 3 fishing years with available data (2019–20 through 2021–22) to the recreational ACL for the 2023–2024 fishing year. Recreational landings in each of these past 3 fishing years have been less than the 2023–2024 recreational ACL; and NMFS expects similar landings for the 2023–2024 fishing season. Therefore, because NMFS projects that the recreational landings of black sea bass will be less than the 2023–2024 recreational ACL, NMFS does not expect to close the recreational sector during the fishing year and announces the season end date for recreational fishing for black sea bass in the South Atlantic EEZ south of 35°15.19′ N latitude is March 31, 2024.

Classification

NMFS issues this action pursuant to section 305(d) of the Magnuson-Stevens Act. This action is required by 50 CFR 622.193(e)(2), which were issued pursuant to section 304(b), and is exempt from review under Executive Order 12866.

Pursuant to 5 U.S.C. 553(b)(B), there is good cause to waive prior notice and an opportunity for public comment on this action, as notice and comment is unnecessary. Such procedures are unnecessary because the rule establishing the AM has already been subject to notice and comment and all that remains is to notify the public of the recreational season length.

For the reasons already stated, the Assistant Administrator for NMFS also finds good cause to waive the 30-day delay in the effectiveness of this action under 5 U.S.C. 553(d)(3).

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

Dated: March 24, 2023.

Jennifer M. Wallace,

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

[FR Doc. 2023–06517 Filed 3–28–23; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 679

[Docket No. 230306–0065; RTID 0648–XC879]

Fisheries of the Exclusive Economic Zone Off Alaska; Reallocation of Pacific Cod in the Bering Sea and Aleutian Islands Management Area

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Temporary rule; reallocation.

SUMMARY: NMFS is reallocating the projected unused amount of Pacific cod from vessels using jig gear to catcher vessels less than 60 feet (18.3 meters) length overall using hook-and-line or pot gear in the Bering Sea and Aleutian Islands management area. This action is necessary to allow the A season apportionment of the 2023 total allowable catch of Pacific cod to be harvested.

DATES: Effective March 24, 2023 through 2400 hours, Alaska local time (A.l.t.), December 31, 2023.

FOR FURTHER INFORMATION CONTACT: Krista Milani, 907–581–2062.

SUPPLEMENTARY INFORMATION: NMFS manages the groundfish fishery in the Bering Sea and Aleutian Islands (BSAI) according to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area (FMP) prepared by the North Pacific Fishery Management Council under authority of the Magnuson-Stevens Fishery Conservation and Management Act. Regulations governing fishing by U.S. vessels in accordance with the FMP appear at subpart H of 50 CFR part 600 and 50 CFR part 679.

The A season apportionment of the 2023 Pacific cod total allowable catch (TAC) specified for vessels using jig gear in the BSAI is 1,019 metric tons (mt) as established by the final 2023 and 2024 harvest specifications for groundfish in the BSAI (88 FR 14926, March 10, 2023).

The 2023 Pacific cod TAC allocated to catcher vessels less than 60 feet (18.3 meters (m)) length overall (LOA) using hook-and-line or pot gear in the BSAI is 2,410 mt as established by final 2023 and 2024 harvest specifications for groundfish in the BSAI (88 FR 14926, March 10, 2023).

The Administrator, Alaska Region, NMFS, (Regional Administrator) has determined that jig vessels will not be able to harvest 950 mt of the A season apportionment of the 2023 Pacific cod TAC allocated to those vessels under § 679.20(a)(7)(ii)(A)(*1*). Therefore, in accordance with § 679.20(a)(7)(iv)(C), NMFS apportions 950 mt of Pacific cod from the A season jig gear apportionment to the annual amount specified for catcher vessels less than 60 feet (18.3 m) LOA using hook-and-line or pot gear.

The harvest specifications for 2023 Pacific cod included in final 2023 and 2024 harvest specifications for groundfish in the BSAI (88 FR 14926, March 10, 2023) are revised as follows: 69 mt to the A season apportionment and 748 mt to the annual amount for vessels using jig gear, and 3,360 mt to catcher vessels less than 60 feet (18.3 m) LOA using hook-and-line or pot gear.

Classification

NMFS issues this action pursuant to section 305(d) of the Magnuson-Stevens Act. This action is required by 50 CFR part 679, which was issued pursuant to section 304(b), and is exempt from review under Executive Order 12866.

Pursuant to 5 U.S.C. 553(b)(B), there is good cause to waive prior notice and an opportunity for public comment on this action, as notice and comment would be impracticable and contrary to the public interest, as it would prevent NMFS from responding to the most recent fisheries data in a timely fashion, and would delay the reallocation of Pacific cod specified from jig vessels to catcher vessels less than 60 feet (18.3 m) LOA using hook-and-line or pot gear. NMFS was unable to publish a notice providing time for public comment because the most recent, relevant data only became available as of March 20, 2023.

The Assistant Administrator for Fisheries, NOAA also finds good cause to waive the 30-day delay in the effective date of this action under 5 U.S.C. 553(d)(3). This finding is based upon the reasons provided above for waiver of prior notice and opportunity for public comment.

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

Dated: March 24, 2023.

Jennifer M. Wallace,

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

[FR Doc. 2023–06542 Filed 3–24–23; 4:15 pm]

BILLING CODE 3510–22–P

Proposed Rules

Federal Register
Vol. 88, No. 60
Wednesday, March 29, 2023

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

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 73

[Docket No. FAA–2023–0451; Airspace Docket No. 20–ASO–27]

RIN 2120–AA66

Establishment of Restricted Areas R–5306G and R–5306H and Amendment of Restricted Areas R–5306C and R–5306D; Cherry Point, NC

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This action proposes to establish restricted areas R–5306G and R–5306H at Marine Corps Air Station (MCAS) Cherry Point, NC. The proposed restricted areas would overlie the amended restricted areas R–5306C and R–5306D and the existing R–5306E. This action also proposes minor amendments of 2 latitude/longitude coordinates in R–5306C and R–5306D to align with a refined 3 nautical mile boundary line off the coast, and controlling agency change for R–5306A, R–5306C, R–5306D, and R–5306E to MCAS Cherry Point CERAP. Due to altitude constraints, the existing restricted airspace structure around MCAS Cherry Point cannot fully support the training requirements for current 4th or 5th generation aircraft such as the F–18 and F–35. The proposed restricted areas would provide realistic training to enable pilots and aircrews to deliver real or simulated laser-guided precision guided munitions (PGM) from realistic altitudes.

DATES: Comments must be received on or before May 15, 2023.

ADDRESSES: Send comments identified by FAA Docket No. 2023–0451 and Airspace Docket No. 20–ASO–27 using any of the following methods:

* *Federal eRulemaking Portal:* Go to *www.regulations.gov* and follow the online instructions for sending your comments electronically.

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

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

* *Fax:* Fax comments to Docket Operations at (202) 493–2251.

Privacy: In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to *www.regulations.gov,* as described in the system of records notice (DOT/ALL–14 FDMS), which can be reviewed at *www.dot.gov/privacy.*

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

FOR FURTHER INFORMATION CONTACT: Brian Vidis, Rules and Regulations Group, Office of Policy, Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 20591; telephone: (202) 267–8783.

SUPPLEMENTARY INFORMATION:

Authority for This Rulemaking

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the United States Code. Subtitle I, Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority. This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart I, Section 40103. Under that section, the FAA is charged with prescribing regulations to assign the use of the airspace necessary to ensure the safety of aircraft and the efficient use of airspace. This regulation is within the scope of that authority as it would establish restricted area airspace at Cherry Point, NC, to enhance aviation safety and accommodate essential U.S. Marine Corps training activities.

Comments Invited

The FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. Comments are specifically invited on the overall regulatory, aeronautical, economic, environmental, and energy-related aspects of the proposal. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should submit only one time if comments are filed electronically, or commenters should send only one copy of written comments if comments are filed in writing.

The FAA will file in the docket all comments it receives, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, the FAA will consider all comments it receives on or before the closing date for comments. The FAA will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. The FAA may change this proposal in light of the comments it receives.

Availability of NPRM

An electronic copy of this document may be downloaded through the internet at *www.regulations.gov.* Recently published rulemaking documents can also be accessed through the FAA's web page at *www.faa.gov/air_traffic/publications/airspace_amendments/.*

You may review the public docket containing the proposal, any comments received and any final disposition in person in the Dockets Office (see **ADDRESSES** section for address and phone number) between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. An informal docket may also be examined during normal business hours at the office of the Eastern Service Center, Federal Aviation Administration, Room 210, 1701

Columbia Avenue, College Park, GA 30337.

Background

The U.S. Marine Corps submitted a proposal to the FAA to expand the existing restricted area at MCAS Cherry Point, NC, because the altitude constraints of the current airspace structure cannot fully support U.S. Marine Corps training and readiness requirements for current 4th or 5th generation aircraft, such as the F–18 and F–35. Specifically, the existing restricted areas R–5306C extends from 1,200 mean sea level (MSL) to but not including flight level (FL) 180, and R–5306D and R–5306E extend from the surface to but not including FL180. These altitude constraints limit the U.S. Marine Corps' ability to conduct realistic training by accurately representing laser-guided PGM employment during combat operations. Laser-guided PGMs require high-angle fires delivery techniques that necessitate flying at higher altitudes. The U.S. Marine Corps needs additional, high-altitude restricted airspace up to 27,000 feet MSL to provide a realistic training environment for pilots and aircrews to be better prepared for combat operations.

In conjunction with restricted areas R–5306C, R–5306D, and R–5306E; the proposed R–5306G and R–5306H would provide the airspace needed to contain actual and simulated deliveries of ordnance for training in conducting complex, simultaneous, live-fire missions, and provide realistic training to pilots and aircrews to counter evolving threat nation anti-aircraft capabilities.

The Proposal

The FAA is proposing an amendment to 14 CFR part 73 to establish restricted areas R–5306G and R–5306H, Cherry Point, NC. If established, R–5306G and R–5306H would overlie the amended restricted areas R–5306C and R–5306D and the existing R–5306E. Restricted area R–5306G would extend from 18,000 feet MSL to 23,000 feet MSL. The time of designation would be Intermittent, 0600–0000 local time Monday–Friday, other times by NOTAM. R–5306H would extend from 23,001 MSL to 27,000 feet MSL. The time of designation would be Intermittent, by NOTAM 4 hours in advance, 0001–1230 local time, May 1–October 31. This action also proposes minor amendments of 2 latitude/longitude coordinates in R–5306C and R–5306D to align with a refined 3 nautical mile boundary line off the coast, and controlling agency change for R–5306A, R–5306C, R–5306D, and R–5306E to MCAS Cherry Point Combined Center Radar Approach Control (CERAP).

Two Air Traffic Service routes, J–174 and Q–101, would be impacted by the proposed restricted areas. However, R–5306G and R–5306H would be joint-use; meaning that the restricted areas would be returned to the controlling agency (FAA, Washington Air Route Traffic Control Center (ARTCC) or Cherry Point CERAP) on a real time basis when not in use by the using agency. Additionally, the FAA proposes to make provisions that would allow the controlling agency to recall the airspace when necessary to accommodate traffic flows. Based on these considerations, the FAA expects minimum impact on commercial aircraft.

Regulatory Notices and Analyses

The FAA has determined that this proposed regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore: (1) is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under Department of Transportation (DOT) Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this proposed rule, when promulgated, will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

Environmental Review

This proposal will be subject to an environmental analysis in accordance with FAA Order 1050.1F, ''Environmental Impacts: Policies and Procedures'' prior to any FAA final regulatory action.

List of Subjects in 14 CFR Part 73

Airspace, Prohibited areas, Restricted areas.

The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend 14 CFR part 73 as follows:

PART 73—SPECIAL USE AIRSPACE

■ 1. The authority citation for part 73 continues to read as follows:

Authority: 49 U.S.C. 106(f), 106(g); 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR, 1959–1963 Comp., p. 389.

§ 73.53 North Carolina [Amended]

■ 2. Section 73.53 is amended as follows:

* * * * *

R–5306A Cherry Point, NC [Amended]

By removing the current Controlling Agency and inserting the following in its place:

Controlling agency. Marine Corps Air Station Cherry Point Combined Center Radar Approach Control (CERAP).

* * * * *

R–5306C Cherry Point, NC [Amended]

Boundaries. Beginning at lat. 34°51′01″ N, long. 77°05′29″ W; to lat. 34°42′01″ N, long. 76°54′44″ W; to lat. 34°41′51″ N, long. 76°56′19″ W; to lat. 34°37′36″ N, long. 76°56′19″ W; thence southwest along a line 3 nautical miles from and parallel to the shoreline to lat. 34°34′16″ N, long. 77°08′51″ W; to lat. 34°34′31″ N, long. 77°08′59″ W; to lat. 34°44′51″ N, long. 77°14′39″ W; to lat. 34°49′31″ N, long. 77°09′59″ W; thence to the point of beginning.

Designated altitudes. From 1,200 feet MSL to, but not including FL 180.

Time of designation. Continuous.

Controlling agency. Marine Corps Air Station Cherry Point CERAP.

Using agency. USMC, Commanding Officer, U.S. Marine Corps Air Station Cherry Point, NC.

R–5306D Cherry Point, NC [Amended]

Boundaries. Beginning at lat. 34°44′51″ N, long. 77°14′39″ W; to lat. 34°34′31″ N, long. 77°08′59″ W; to lat. 34°34′16″ N, long. 77°08′51″ W; thence southwest along a line 3 nautical miles from and parallel to the shoreline to lat. 34°30′26″ N, long. 77°15′55″ W; to lat. 34°33′01″ N, long. 77°18′59″ W; to lat. 34°36′06″ N, long. 77°26′07″ W; to lat. 34°40′01″ N, long. 77°21′59″ W; to lat. 34°39′11″ N, long. 77°20′49″ W; thence to the point of beginning.

Designated altitudes. Surface to, but not including FL 180.

Time of designation. Continuous.

Controlling agency. Marine Corps Air Station Cherry Point CERAP.

Using agency. USMC, Commanding General, Marine Corps Installations East-Marine Corps Base Camp Lejeune, NC.

* * * * *

R–5306E Cherry Point, NC [Amended]

By removing the current Controlling Agency and inserting the following in its place:

Controlling agency. Marine Corps Air Station Cherry Point CERAP.

* * * * *

R–5306G Cherry Point, NC [New]

Boundaries. Beginning at lat. 34°51′01″ N, long. 77°05′29″ W; to lat. 34°42′01″ N, long. 76°54′44″ W; to lat. 34°41′51″ N, long. 76°56′19″ W; to lat. 34°37′36″ N, long. 76°56′19″ W; thence southwest 3 NM from

and parallel to the shoreline to lat. 34°30′26″ N, long. 77°15′55″ W; to lat. 34°33′01″ N, long. 77°18′59″ W; to lat. 34°36′06″ N, long. 77°26′07″ W; to lat. 34°38′13″ N, long. 77°25′59″ W; to lat. 34°40′21″ N, long. 77°22′11″ W; to lat. 34°40′01″ N, long. 77°21′59″ W; to lat. 34°39′11″ N, long. 77°20′49″ W; to lat. 34°44′51″ N, long. 77°14′39″ W; to lat. 34°49′31″ N, long. 77°09′59″ W; to the point of beginning.

Designated altitudes. 18,000 feet MSL to 23,000 feet MSL.

Time of designation. Intermittent, 0600–0000 local time Monday–Friday, other times by NOTAM.

Controlling agency. Marine Corps Air Station Cherry Point CERAP.

Using agency. USMC, Commanding Officer, U.S. Marine Corps Air Station Cherry Point, NC.

R–5306H Cherry Point, NC [New]

Boundaries. Beginning at lat. 34°51′01″ N, long. 77°05′29″ W; to lat. 34°42′01″ N, long. 76°54′44″ W; to lat. 34°41′51″ N, long. 76°56′19″ W; to lat. 34°37′36″ N, long. 76°56′19″ W; thence southwest 3 NM from and parallel to the shoreline to lat. 34°30′26″ N, long. 77°15′55″ W; to lat. 34°33′01″ N, long. 77°18′59″ W; to lat. 34°36′06″ N, long. 77°26′07″ W; to lat. 34°38′13″ N, long. 77°25′59″ W; to lat. 34°40′21″ N, long. 77°22′11″ W; to lat. 34°40′01″ N, long. 77°21′59″ W; to lat. 34°39′11″ N, long. 77°20′49″ W; to lat. 34°44′51″ N, long. 77°14′39″ W; to lat. 34°49′31″ N, long. 77°09′59″ W; to the point of beginning.

Designated altitudes. 23,001 feet MSL to 27,000 feet MSL.

Time of designation. Intermittent, by NOTAM 4 hours in advance, 0001–1230 local time May 1–October 31.

Controlling agency. FAA, Washington ARTCC.

Using agency. USMC, Commanding Officer, U.S. Marine Corps Air Station Cherry Point, NC.

* * * * *

Issued in Washington, DC, on March 23, 2023.

Brian Konie,

Acting Manager, Airspace Rules and Regulations Group.

[FR Doc. 2023–06415 Filed 3–28–23; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

26 CFR Part 52

[REG–105954–22]

RIN 1545–BQ40

Superfund Chemical Taxes

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice of proposed rulemaking.

SUMMARY: This document contains proposed regulations relating to the excise taxes imposed on certain chemicals and certain imported substances, effective July 1, 2022. Such taxes are known as the Superfund chemical taxes. The excise tax on taxable chemicals is imposed on the sale or use of taxable chemicals by manufacturers, producers, and importers of such chemicals. The excise tax on taxable substances is imposed on the sale or use of taxable substances by importers of such taxable substances. The proposed regulations affect manufacturers, producers, and importers that sell or use taxable chemicals and importers that sell or use taxable substances.

DATES: Written or electronic comments and requests for a public hearing must be received by May 30, 2023. Requests for a public hearing must be submitted as prescribed in the ''Comments and Requests for a Public Hearing'' section.

ADDRESSES: Commenters are strongly encouraged to submit public comments electronically. Submit electronic submissions via the Federal eRulemaking Portal at *https://www.regulations.gov* (indicate IRS and REG–105954–22) by following the online instructions for submitting comments. Comments cannot be edited or withdrawn once submitted to the Federal eRulemaking Portal. The Department of the Treasury (Treasury Department) and the IRS will publish for public availability any comment submitted electronically or on paper to its public docket.

Send paper submissions to: CC:PA:LPD:PR (REG–105954–22), Room 5203, Internal Revenue Service, P.O. Box 7604, Ben Franklin Station, Washington, DC 20044.

FOR FURTHER INFORMATION CONTACT: Concerning the proposed regulations, Stephanie Bland or Amanda Dunlap at (202) 317–6855 (not a toll-free number); concerning the submission of comments and/or requests for a public hearing, Vivian Hayes by phone at (202) 317–5177 (not a toll-free number) or by email at *publichearings@irs.gov* (preferred).

SUPPLEMENTARY INFORMATION:

Background

I. Overview

This document contains proposed regulations under sections 4661, 4662, 4671, and 4672 of the Internal Revenue Code (Code) to amend the Environmental Tax Regulations (26 CFR part 52). Section 4661(a) imposes an excise tax on the sale or use of ''taxable chemicals'' by manufacturers, producers, or importers (section 4661 tax), and section 4662 provides definitions and special rules for applying the section 4661 tax. Section 4671(a) imposes an excise tax on the sale or use of ''taxable substances'' by importers (section 4671 tax), and section 4672 provides definitions and special rules for applying the section 4671 tax. The section 4661 tax and the section 4671 tax are collectively referred to as the ''Superfund chemical taxes'' because these excise taxes fund the Hazardous Substance Response Trust Fund established by section 221 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), Public Law 96–510, 94 Stat. 2767 (1980), informally referred to as ''Superfund.''

The Superfund chemical taxes previously expired on December 31, 1995, but were reinstated with certain modifications, effective July 1, 2022, through December 31, 2031, by section 80201 of the Infrastructure Investment and Jobs Act (IIJA), Public Law 117–58, 135 Stat. 429 (November 15, 2021). The proposed regulations provide guidance on the application of the reinstated Superfund chemical taxes. As explained later in this Background section, the Treasury Department and the IRS have issued additional guidance on topics related to the reinstated Superfund chemical taxes that are not covered by the proposed regulations.

II. Section 4661 Tax on Taxable Chemicals

A. In General

The section 4661 tax was enacted as part of CERCLA to impose an excise tax on the sale or use of any taxable chemical by the manufacturer, producer, or importer of the taxable chemical. While section 4661(a) imposes tax on the sale of any taxable chemical, section 4662(c)(1) treats the use of a taxable chemical as a sale of the taxable chemical.

Section 4661(b) provides a table of 42 chemicals and the per-ton tax rate for each chemical. As reinstated by the IIJA, the per-ton tax rate for each of the 42 taxable chemicals in the table under section 4661(b) is double the per-ton tax rate previously imposed by section 4661 as in effect at the end of 1995.

The IIJA also amends section 4661(c), effective July 1, 2022, to provide that no section 4661 tax will be imposed after December 31, 2031.

B. Definition of Taxable Chemical and Other Terms

Under section 4662(a)(1), any chemical listed in the table under section 4661(b) is a ''taxable chemical'' if it is manufactured or produced in the

United States or entered into the United States for consumption, use, or warehousing. Section 4662(a) also provides definitions of the terms ''United States,'' ''importer,'' and ''ton,'' as well as a rule that clarifies how the per-ton section 4661 tax is imposed on fractional parts of a ton.

C. Statutory Exceptions and Special Rules

Section 4662(b) provides exceptions from the definition of taxable chemical and special rules that apply to the section 4661 tax.

The following exceptions to the section 4661 tax provided by section 4662(b)(1) through (b)(4) were first enacted as part of CERCLA. Section 4662(b)(1) provides that methane or butane is treated as a taxable chemical only if it is used otherwise than as a fuel or in the manufacture or production of any motor fuel, diesel fuel, aviation fuel, or jet fuel, and that the person so using the fuel is treated as the manufacturer. Under section 4662(b)(2), generally no section 4661 tax is imposed on nitric acid, sulfuric acid, ammonia, or methane used to produce ammonia if used as a qualified fertilizer substance. Section 4662(b)(3) provides that no section 4661 tax is imposed in the case of sulfuric acid produced solely as a byproduct of and on the same site as air pollution control equipment. Finally, section 4662(b)(4) provides that the term taxable chemical does not include any substance to the extent derived from coal.

In addition to modifying the exceptions for methane and butane in section 4662(b)(1) and qualified fertilizer substances in section 4662(b)(2), section 1019 of the Tax Reform Act of 1984, enacted as Division A of the Deficit Reduction Act of 1984, Public Law 98–369, 98 Stat. 494, 1022 (July 18, 1984), added section 4662(b)(5) (providing generally that no section 4661 tax is imposed on several specified taxable chemicals used as a qualified fuel substance) and section 4662(b)(6) (providing generally that no section 4661 tax is imposed on several specified taxable chemicals by reason of the transitory presence of such chemical during any process of smelting, refining, or otherwise extracting any substance not subject to the section 4661 tax).

The Superfund Revenue Act of 1986 (Superfund Revenue Act), enacted as Title V of the Superfund Amendments and Reauthorization Act of 1986, Public Law 99–499, 100 Stat. 1613, 1760 (October 17, 1986), added the exceptions and special rules in section 4662(b)(7) through (10). Section 4662(b)(7) provides that except in the case of a substance imported into the United States or exported from the United States, the term xylene does not include any separated isomer of xylene. Section 4662(b)(8) generally provides that no section 4661 tax is imposed on any chromium, cobalt, or nickel that is diverted or recovered in the United States from any solid waste as part of a recycling process (and not as part of the original manufacturing or production process), and section 4662(b)(9) provides generally that no tax is imposed on certain taxable chemicals used as a qualified animal feed substance. Section 4662(b)(10) provides an exception from tax for sales of organic taxable chemicals while those chemicals are part of an intermediate hydrocarbon stream and imposes a registration requirement on both parties to the sale.

The Superfund Revenue Act also added section 4662(c)(2) to the Code, which provides a special rule exempting certain inventory exchanges of taxable chemicals from the section 4661 tax and imposes a registration requirement on both parties to the exchange to qualify for the exemption.

D. Credits and Refunds

Enacted as part of CERCLA, section 4662(d)(1) through (3) provides rules authorizing the Secretary of the Treasury or her delegate (Secretary) to provide regulations regarding credits and refunds of the section 4661 tax for (i) the use of a taxable chemical in the manufacture of another substance that is a taxable chemical, (ii) the use of certain taxable chemicals in the production of fertilizer, and (iii) the use of certain taxable chemicals as qualified fuel. Section 4662(d)(4), which was added by the Superfund Revenue Act, authorizes the Secretary to provide regulations regarding credits and refunds of the section 4661 tax for the use of certain taxable chemicals in the production of animal feed.

E. Export Exemption

The Superfund Revenue Act added section 4662(e) to the Code to provide an exemption for the exportation of taxable chemicals. Section 4662(e)(1)(A) allows for the tax-free sale of taxable chemicals for export. Section 4662(e)(1)(B) imposes a proof of export requirement and provides that rules similar to the rules of section 4221(b) (relating to tax-free sales for purposes of the manufacturers excise taxes codified in chapter 32 of the Code (chapter 32)) are to apply.

Section 4662(e)(2)(A) provides a mechanism for a credit or refund of the section 4661 tax paid on a taxable chemical, or on a taxable chemical that is used in the production of a taxable substance, that is exported. Section 4662(e)(2)(B) establishes conditions to allowance for a credit or refund under such circumstances.

Section 2001 of the Technical and Miscellaneous Revenue Act of 1988 (TAMRA), Public Law 100–647, 102 Stat. 3342, 3593 (November 10, 1988), redesignated section 4662(e)(3) as section 4662(e)(4) and added a new section 4662(e)(3), which requires the Secretary to provide, by regulation, the circumstances under which a credit or refund may be allowed or made directly to the party that exported a taxable chemical or taxable substance. Section 4662(e)(4), as redesignated by TAMRA, requires the Secretary to issue regulations to carry out the purposes of section 4662(e).

III. Section 4671 Tax on Taxable Substances

A. In General

The section 4671 tax is imposed on any taxable substance sold or used by the importer thereof. The tax was added to the Code by section 515 of the Superfund Revenue Act. The term ''taxable substance'' is defined by section 4672(a), which is described in part III.B. of this Background section.

Section 4671(b) provides rules regarding how the amount of section 4671 tax is calculated. Section 4671(b)(1) provides that the amount of section 4671 tax is the amount of section 4661 tax that would have been imposed on the taxable chemicals used as materials in the manufacture or production of the taxable substance if such taxable chemicals had been sold in the United States for use in the manufacture or production of the taxable substance. If the importer does not furnish to the Secretary sufficient information to determine under section 4671(b)(1) the amount of section 4671 tax imposed on any taxable substance, section 4671(b)(2), as reinstated by the IIJA, provides that the amount of section 4671 tax imposed is 10 percent (instead of 5 percent as originally enacted) of the appraised value of the substance as of the time the taxable substance was entered into the United States for consumption, use, or warehousing. Section 4671(b)(3) provides that the Secretary may prescribe an amount of section 4671 tax for each taxable substance that will apply in lieu of the tax specified in section 4671(b)(2), equal to the amount of section 4671 tax that would be imposed with respect to a taxable substance if such substance were produced using the predominant

method of production of such substance.

Section 4671(c) provides that no section 4671 tax is imposed on the sale or use of any substance if tax is imposed on such sale or use under section 4611 (imposing an excise tax on crude oil received at a United States refinery and on imported petroleum products entered into the United States for consumption, use, or warehousing). Section 4671(c) further provides that no section 4671 tax is imposed on the sale or use of any substance if such sale or use was subject to the section 4661 tax.

Section 4671(d) generally provides that rules similar to certain rules in section 4662(b) and (d) relating to exemptions for using substances as certain fuels or in the production of fertilizer or animal feed will apply with respect to taxable substances. Section 4671(d)(1) provides that rules similar to section 4662(b)(2), (5), and (9) (relating to tax-free sales of chemicals used as fuel or in the production of fertilizer or animal feed) apply with respect to taxable substances. Section 4671(d)(2) provides that rules similar to section 4662(d)(2), (3), and (4) (relating to credit or refund of tax on certain chemicals used as fuel or in the production of fertilizer or animal feed) apply with respect to taxable substances.

Section 4671(e), as amended by the IIJA effective July 1, 2022, provides that no section 4671 tax will be imposed after December 31, 2031.

B. List of Taxable Substances

For purposes of the section 4671 tax, section 4672(a)(1) provides that the term ''taxable substance'' means any substance that, at the time of sale or use by the importer, is listed as a taxable substance by the Secretary.

Section 4672(a) provides an initial list of taxable substances and mechanisms for adding substances to and removing substances from such list. There are two ways that a substance can be listed as a taxable substance. The first way a substance can be listed as a taxable substance, provided by section 4672(a)(2)(A), is if the substance is included in the initial list of taxable substances under section 4672(a)(3), as enacted by the Superfund Revenue Act. The second way, provided by section 4672(a)(2)(B) as amended by the IIJA, effective July 1, 2022, is if the Secretary determines, in consultation with the Administrator of the Environmental Protection Agency (EPA) and the Commissioner of U.S. Customs and Border Protection (CBP), that taxable chemicals constitute more than 20 percent of the weight or more than 20 percent of the value of the materials used to produce such substance, determined on the basis of the predominant method of production (more than 20-percent weight or value test). The last sentence of section 4672(a)(2) provides that if an importer or exporter of any substance requests that the Secretary determine whether such substance should be listed as a taxable substance under section 4672(a)(1) or be removed from such listing, the Secretary must make such determination within 180 days after the date the request was filed. *See* Rev. Proc. 2022–26 (2022–29 I.R.B. 90) for the exclusive process for making such requests. Further, section 4672(a)(4) provides that the Secretary must add to the list of taxable substances under section 4672(a)(3) those substances that meet the more than 20-percent weight or value test, and that the Secretary may remove from the list only substances that meet neither of such tests. The complete list of taxable substances under section 4672(a) is referred to in this preamble as the ''Taxable Substances List.'' The IRS will maintain the Taxable Substances List at *https://www.irs.gov/businesses/small-businesses-self-employed/superfund-chemical-excise-taxes.*

Section 4672(b)(1) and (2) provides additional definitions applicable to sections 4671 and 4672. Section 4672(b)(1) provides that the term ''importer'' means the person entering the taxable substance for consumption, use, or warehousing. Section 4672(b)(2) provides that the terms ''taxable chemical'' and ''United States'' have the respective meanings given such terms by section 4662(a).

IV. Procedural Rules

The Superfund chemical taxes are codified in chapter 38 of the Code (chapter 38), which pertains to environmental excise taxes.

The procedural regulations governing chapter 38 taxes are contained in 26 CFR part 40 (Excise Tax Procedural Regulations). *See* 26 CFR 52.0–1 and 40.0–1(a). Chapter 38 taxes are reported on Form 6627, *Environmental Taxes,* which is required to be attached to Form 720, *Quarterly Federal Excise Tax Return* (Form 720 return). *See* §§ 40.0–1(a) and 40.6011(a)–1(a)(1) of the Excise Tax Procedural Regulations.

The procedural regulations in part 40 also provide that each business unit that has, or is required to have, a separate employer identification number (EIN) is treated as a separate person. *See* § 40.0–1(d). Therefore, business units (for example, a parent corporation and a subsidiary corporation, a partner and the partner's partnership, or the various members of a consolidated group), each of which has, or is required to have, a different EIN, are separate persons for purposes of filing quarterly Form 720 returns, quarterly payments of excise tax, semimonthly deposits of excise tax, and registration for certain excise tax activities.

V. Recent Published Guidance Related to the Superfund Chemical Taxes

A. Notice 2021–66 (Preliminary Guidance and Request for Comments)

Notice 2021–66 (2021–52 I.R.B. 901) provided guidance related to the Superfund chemical taxes, including the initial list of taxable substances as required by section 80201(c)(3) of the IIJA, guidance on registration requirements, and guidance on the procedural rules that apply to the Superfund chemical taxes. Notice 2021–66 also requested comments on whether any issues related to the reinstated Superfund chemical taxes require clarification or additional guidance.

The comments can be accessed via the Federal Rulemaking Portal at *https://www.regulations.gov* (type IRS–2021–0018 or Notice 2021–66 in the search field on the *regulations.gov* homepage to find the comments).

B. Notice 2022–15 (Deposit Penalty Relief)

Under § 40.6302(c)–1, taxpayers must make semimonthly deposits of the Superfund chemical excise taxes. Section 40.0–1(c) provides that a semimonthly period is the first fifteen (15) days of a calendar month or the portion of a calendar month following the 15th day of the month.

One commenter to Notice 2021–66 (commenter) requested deposit penalty relief. After considering the comment, the Treasury Department and the IRS issued Notice 2022–15 (2022–18 I.R.B. 1043) to provide transitional relief for the third and fourth calendar quarters of 2022, and the first calendar quarter of 2023, regarding the failure to deposit penalty imposed by section 6656 of the Code for failures to deposit Superfund chemical taxes through March 31, 2023, provided certain requirements are met.

C. Revenue Procedure 2022–26 (Exclusive Process for Requesting Modifications to the Taxable Substances List)

Notice 89–61 (1989–1 C.B. 717), as modified by Notice 95–39 (1995–1 C.B. 312), provided the previous process by which importers and exporters could request to add a substance to or remove a substance from the Taxable Substances List. Several commenters

requested that the Treasury Department and the IRS provide an updated procedure by which importers and exporters may petition to add a substance to or remove a substance from the Taxable Substances List. Those commenters also requested that any new guidance provide notice of requests for modifications to the Taxable Substances List and an opportunity for public comment.

Rev. Proc. 2022–26 sets forth the exclusive process by which importers, exporters, and interested persons may petition to add a substance to or remove a substance from the Taxable Substances List. The process set forth in Rev Proc. 2022–26 provides for public notice of any petition and the opportunity for public comment.

Explanation of Provisions

I. General Rules Regarding the Section 4661 Tax

Proposed § 52.4661–1 sets forth general rules regarding the section 4661 tax, including rules regarding the imposition of tax, the attachment of tax, the persons liable for tax, the amount of tax, and the calculation of the amount of tax.

A. Attachment of Tax

1. General Rule; Foreign Manufacturers

Proposed § 52.4661–1(c)(1) clarifies that the section 4661 tax attaches to the first sale or use of a taxable chemical by the manufacturer, producer, or importer. This is consistent with Congressional intent that the tax apply only once to a given quantity of a taxable chemical. *See* S. Rep. No. 96–848, 96th Cong., 2d Sess. 21 (1980) (''A number of provisions are included in the fee system to assure an equitable fee which avoids unintended economic impacts, including: a provision which allows only one fee collection on any given quantity.'').

Proposed § 52.4661–1(c)(2) clarifies that in situations involving a foreign manufacturer, the section 4661 tax does not attach to the foreign manufacturer's sale of a substance listed in the table under section 4661(b) to the importer because the substance is not a taxable chemical at the time of such sale; rather, tax attaches to the importer's first sale or use of the taxable chemical. This rule is consistent with section 4661(a) and the definition of the term ''taxable chemical'' in section 4662(a)(1). It is also consistent with the overall statutory scheme of excise taxes and relevant case law. *See, e.g., Indian Motorcycle Co.* v. *United States,* 283 U.S. 570 (1931) (excise tax is not imposed on the importation of a taxable motorcycle, but rather on the first sale by the importer).

2. Dilution of Chemical Mixtures

Proposed § 52.4661–1(c)(1) clarifies that in the case of chemical mixtures containing one or more chemicals with respect to which tax was paid (tax-paid chemicals), no section 4661 tax attaches when the chemical mixture is diluted with a solvent to change the concentration of the chemical mixture, provided the solvent is not a taxable chemical. The proposed regulations take this approach because the section 4661 tax has already been paid on the taxable chemicals in the chemical mixture, and the taxable chemicals in the chemical mixture do not lose their identity during the dilution process.

3. Chemical Mixtures and Chemical Compounds

A chemical mixture is generally any substance composed of two or more physically-combined components that are not chemically bonded. Chemical mixtures include solutions, suspensions, and alloys. If a taxable chemical is a component of a chemical mixture, the taxable chemical remains a taxable chemical while it is part of the chemical mixture.

In contrast, a chemical compound is generally any substance composed of identical molecules, each of which consists of two or more atoms of the same or different elements held together by chemical bonds. A taxable chemical used to produce a chemical compound does not retain its individual properties.

With regard to domestically-produced chemical mixtures, the manufacture or production of a chemical mixture is a ''use'' of the taxable chemicals in the chemical mixture under proposed § 52.4662–1(c)(15), and the section 4661 tax attaches at the time of such use. However, the ''use'' definition does not capture any taxable chemicals found in imported chemical mixtures. Therefore, the taxable chemicals found in an imported chemical mixture could completely escape the section 4661 tax unless the importer engages in a manufacturing process of separating the taxable chemicals in the mixture (such a process would make the importer the manufacturer of the taxable chemicals in the mixture) and then sells or uses those taxable chemicals. This would give foreign manufacturers of chemical mixtures a competitive advantage over domestic manufacturers of the same chemical mixtures.

To address this disparity, proposed § 52.4661–1(c)(3) provides that when a taxable chemical is part of an imported chemical mixture that is not a taxable substance (as defined in section 4672(a)(1) and proposed § 52.4672–1(b)(8)), tax attaches to the first sale or use of the chemical mixture by the importer. Further, proposed § 52.4661–1(f)(2) includes a rule regarding the calculation of the amount of tax with regard to chemical mixtures. More specifically, under proposed § 52.4661–1(f)(2)(ii), when a taxable chemical is part of an imported chemical mixture that is not a taxable substance, as defined in section 4672(a)(1) and proposed § 52.4672–1(b)(8), tax is imposed on the actual weight of any taxable chemicals in the chemical mixture at the time the importer first sells or uses the chemical mixture. These rules ensure that foreign and domestic manufacturers of chemical mixtures are treated the same for purposes of the section 4661 tax. The approach is supported by the fact that a taxable chemical in a chemical mixture is assumed to retain its chemical identity while part of the chemical mixture. There is also support for this position in case law. *See Murphy Oil USA, Inc.* v. *United States,* 81 F. Supp. 2d 942 (W.D. Ark. 1999) (section 4661 tax is imposed on the taxable chemicals in a chemical mixture).

As with chemical mixtures, the domestic manufacture or production of a chemical compound with one or more taxable chemicals is a taxable use of the taxable chemicals. Therefore, the domestic manufacturer or producer of the chemical compound is liable for the section 4661 tax. However, because a taxable chemical used to produce a chemical compound does not retain its chemical identity, the Treasury Department and the IRS lack the authority under sections 4661 and 4662 to tax the taxable chemicals used in the production of imported chemical compounds. This creates an advantage for foreign manufacturers of chemical compounds that are produced with taxable chemicals but that are not taxable substances, as defined in section 4672(a) and proposed § 52.4672–1(b)(8). The Treasury Department and the IRS request comments on possible ways to mitigate the disadvantage to domestic manufacturers within the constraints of the statutory scheme.

4. Ores and Metals

Several taxable chemicals, including nickel, cobalt, chromium, and phosphorus, are produced from ores. In addition, one taxable chemical, chromite, is an ore. The production of a taxable chemical from ore requires mining the ore to extract the ore from the earth, and an extraction, smelting, or

other process to remove or refine the taxable chemical from the ore.

Proposed § 52.4661–1(c)(4)(i) provides, generally, that in the case of ores, the section 4661 tax attaches to the first sale or use of the taxable chemical by the manufacturer, producer, or importer after extraction of the taxable chemical from the ore, and the person that extracts the taxable chemical from the ore is the manufacturer of the taxable chemical. Proposed § 52.4661–1(c)(4)(i) further provides that the term ''extraction of a taxable chemical from the ore'' means the first process in the United States that a person uses to separate the taxable chemical from the ore.

As noted earlier, chromite is both a taxable chemical and an ore; therefore, it is treated differently from taxable chemicals that are produced from ores. Proposed § 52.4661–1(c)(4)(ii) provides that in the case of chromite, the section 4661 tax attaches to the first sale or use of chromite by the manufacturer, producer, or importer after the chromite is mined. Under the proposed regulations, the tax treatment of taxable chemicals that are metals under section 4661 is generally addressed by the rule regarding ores. The Treasury Department and the IRS request comments on whether an additional or alternative rule for metals would be appropriate or warranted.

B. Procedural Rules; Definition of Person

Proposed § 52.4661–1(d) notes that the procedural rules in 26 CFR part 40 apply to the section 4661 tax. Proposed § 52.4661–1(d) further notes that each business unit that has, or is required to have, a separate EIN is treated as a separate person for purposes of filing excise tax returns, making semimonthly deposits of excise tax, making payments of excise tax, and applying for the registration required under section 4662(b)(10)(C) and (c)(2)(B). *See* § 40.0–1(d). Proposed § 52.4671–1(d) is a similar provision related to the section 4671 tax.

C. Calculation of the Amount of Tax

1. Measurement and Documentation Regarding Tonnage

Proposed § 52.4661–1(f) provides rules regarding how to calculate the amount of section 4661 tax. As noted earlier, the section 4661 tax applies at a specified rate per ton.

One commenter requested flexibility in how to measure and document tonnage, but did not elaborate on what type of information is generally available in the industry that could potentially be used as a metric for measuring tonnage, on whether different sectors of the industry might require different options for measuring tonnage, or on the degree of specificity that could be attained by using a metric other than the actual weight. The Treasury Department and the IRS lack sufficient information about possible ways to measure tonnage, other than by using the actual weight of the taxable chemical. The Treasury Department and the IRS are also concerned that a broad rule, such as one that would allow any reasonable method of measurement, could artificially reduce the tax base. For these reasons, proposed § 52.4661–1(f)(2)(i) provides that for purposes of calculating the amount of section 4661 tax, the weight of a taxable chemical, measured in tons, is the actual weight of the taxable chemical at the time of sale or use by the manufacturer, producer, or importer.

The Treasury Department and the IRS request comments on any other appropriate methods that could be used to measure tonnage, with specificity and without artificially reducing the tax base. The Treasury Department and the IRS also request comments on the types of documentation available in the industry that could be used as records to support a weight measurement.

2. Conversion Required for Volumetric Measurements

A taxable chemical may be measured in volumetric units. Because the section 4661 tax is imposed at a rate per ton, any volumetric units must be converted to weight units in order to calculate the amount of section 4661 tax. Proposed § 52.4661–1(f)(2)(iii) requires that any volumetric measurement of a taxable chemical be converted to a weight measurement and provides a formula for volume-to-weight conversions.

II. Definitions Relating to Sections 4661 and 4662

As noted earlier, sections 4661 and 4662(c)(1) impose a tax on the sale or use of a taxable chemical by the manufacturer, producer, or importer. Several commenters requested that the Treasury Department and the IRS provide definitions of the terms ''manufacturer,'' ''importer,'' ''sale,'' and ''use.'' The definitions in proposed § 52.4662–1 include those definitions requested by commenters, as well as others that are necessary to provide clarity with regard to the application of sections 4661 and 4662.

A. Taxable Chemical

As discussed in section II of the Background section, section 4662(a)(1) generally defines the term ''taxable chemical'' as any substance (A) that is listed in the table under section 4661(b), and (B) that is manufactured or produced in the United States or entered into the United States for consumption, use, or warehousing. The table under section 4661(b) includes only the name of each taxable chemical. The taxable chemicals listed in the table under section 4661(b) include metals, metalloids, minerals, and an ore (chromite).

The proposed regulations clarify that a substance is a taxable chemical only if it satisfies both prongs of the definition of ''taxable chemical'' in section 4662(a)(1). In addition, the proposed regulations provide that, except as provided in section 4662(b), a substance is listed in the table under section 4661(b) if it has the same name and molecular formula as a substance listed in the table under section 4661(b). The proposed regulations further provide that all isomeric forms of a substance listed in the table under section 4661(b) are treated as having the same name and molecular formula of the substance. Therefore, except as provided in section 4662(b)(7) with respect to xylene, an isomer of a substance listed in the table under section 4661(b) is a substance listed in the table under section 4661(b).

B. Importer

Section 4662(a)(3) defines the term ''importer'' as the person entering the taxable chemical for consumption, use, or warehousing. The proposed regulations clarify that if the person entering the taxable chemical for consumption, use, or warehousing is merely acting as an agent or a customs broker for another person, then the agent or customs broker is not the importer, and the importer is the first person in the United States to sell or use the taxable chemical after entry of the taxable chemical for consumption, use, or warehousing. The proposed regulations also address how to identify the importer with regard to sales that involve drop shipping a taxable chemical when the party shipping the taxable chemical is outside the United States.

C. Manufacturer

Neither section 4661 nor section 4662 defines the term ''manufacturer.'' Proposed § 52.4662–1(c)(6)(i) defines the term ''manufacturer'' as any person that produces a taxable chemical from new or raw material, feedstocks, or other substances, or from scrap, salvage, waste, or recycled substances. Further, under the proposed regulations, a

manufacturer includes any person that produces a taxable chemical from the mining process, or extracts, isolates, separates, or otherwise removes a taxable chemical from an ore or from another substance. A manufacturer also includes any person that produces a taxable chemical by processing or manipulating a substance, such as through the oxidation process. The term manufacturer does not include a person that dilutes a chemical mixture comprised of one or more tax-paid chemicals with a solvent that is not a taxable chemical.

One commenter requested that recyclers be excluded from the definition of the term ''manufacturer.'' Section 4662(b)(8)(A) provides that no section 4661 tax is imposed on any chromium, cobalt, or nickel which is diverted or recovered in the United States from any solid waste as part of a recycling process (and not as part of the original manufacturing or production process). The explicit reference to recycling activities in section 4662(b)(8)(A), combined with the absence of a general exception for recycling activities in sections 4661 and 4662, suggest that Congress did not intend to exclude persons engaged in recycling activities from the definition of the term ''manufacturer.'' Accordingly, the proposed regulations do not adopt this suggestion.

Proposed § 52.4662–1(c)(6)(ii) addresses contract manufacturing. More specifically, proposed § 52.4662–1(c)(6)(ii) provides that if a person manufactures or produces a taxable chemical for a second person, pursuant to a contract, order, or agreement and in accordance with the second person's specifications, or if a person manufactures or produces a taxable chemical for a second person from materials owned by the second person, the second person (and not the first person) is treated as the manufacturer of the taxable chemical manufactured or produced by the first person.

D. Sale

Neither section 4661 nor section 4662 defines the term ''sale.'' Proposed § 52.4662–1(c)(8) defines the term ''sale'' as the transfer of title or substantial incidents of ownership (whether or not delivery to, or payment by, the purchaser has been made) in a taxable chemical for a consideration, which may include, but is not limited to, money, services, or property.

One commenter requested an exclusion from the definition of the term ''sale'' for sales of intermediate hydrocarbon streams and inventory exchanges if both parties to the sale or exchange are taxable chemical registrants. Section 4662(b)(10) and (c)(2) provide exceptions to the section 4661 tax in the scenarios described by the commenter when both parties are registered; therefore, there is no need for a carve out from the definition of the term ''sale.''

E. Ton

Section 4662(a)(4) defines the term ''ton'' to mean 2,000 pounds, which is a short ton. Proposed § 52.4662–1(c)(13) follows the statutory definition.

F. Use

Neither section 4661 nor section 4662 defines the term ''use.'' Proposed § 52.4662–1(c)(15) defines the term ''use'' broadly. More specifically, proposed § 52.4662–1(c)(15) provides that a taxable chemical is used when it is consumed, when it functions as a catalyst, when its chemical composition changes, when it is used in the manufacture or production of a chemical mixture or other substance (including by mixing or combining the taxable chemical with other substances), or when it is put into service in a trade or business for the production of income. The loss or destruction of a taxable chemical through spillage, fire, natural degradation, or other casualty is not a use. The mere manufacture or production of a taxable chemical is not a use of that chemical.

The legislative history of CERCLA notes that in determining how industrial fees should be levied, Congress ''moved away from imposing fees on wastes and hazardous end-products, and instead approved a system which imposes fees on the relatively few basic building blocks used to make all hazardous products and wastes.'' S. Rep. No. 96–848, 96th Cong., 2d Sess. 19 (1980) (quoted language from the Committee Report by the Senate Environment and Public Works Committee on an early draft of S.1480). The legislative history further notes that tax is to be imposed ''at an early step in the industrial chain of production, distribution, consumption, and disposal.'' *Id.* at 20. The definition of ''use'' in the proposed regulations is consistent with the legislative history.

III. Special Rules and Exceptions Relating to the Section 4661 Tax

Section 4662(b) provides a number of exceptions and special rules that apply to the section 4661 tax. Some of the provisions in section 4662(b) provide exceptions to the definition of ''taxable chemical''; other provisions provide general exceptions to the section 4661 tax.

A. Methane or Butane Used as Fuel

Methane and butane are included in the list of taxable chemicals in section 4661(b). Section 4662(b)(1) provides that methane or butane is treated as a taxable chemical only if it is used otherwise than as a fuel or otherwise than in the manufacture or production of any motor fuel, diesel fuel, aviation fuel, or jet fuel. In such cases, the person so using the methane or butane is treated as the manufacturer.

The section 4662(b)(1) rule impacts the timing of the imposition of the section 4661 tax. Unlike other chemicals included in the list of taxable chemicals in section 4661(b) that are taxable chemicals at the time of manufacture, production, or importation, the status of methane or butane as a taxable chemical cannot be determined until the time of use. As a result, it is possible that methane or butane will never become a taxable chemical and no section 4661 tax will attach. It is also possible that there will be intervening sales of methane or butane before the section 4661 tax is imposed.

Proposed § 52.4662–2(a)(2) provides that methane or butane is used otherwise than as a fuel when it is used other than in the production of energy. Proposed § 52.4662–2(a)(2) further provides that methane or butane is used as a fuel when it is used in the production of energy. It also provides examples of when methane or butane is used as a fuel. The rule in the proposed regulations regarding use as a fuel is consistent with existing guidance in other areas of excise tax. *See* section 2(f) of Notice 2006–92 (2006–43 I.R.B. 774) (providing guidance on use as a fuel relating to excise tax on alternative fuel mixtures).

B. Qualified Fertilizer, Fuel, and Animal Feed Substances

Section 4662(b)(2), (5), and (9) provide exceptions to the section 4661 tax for certain taxable chemicals that are qualified fertilizer, fuel, or animal feed substances. Proposed § 52.4662–2(b) provides rules regarding the exception for qualified fertilizer substances. Proposed § 52.4662–2(e) provides rules regarding the exception for qualified fuel substances. Proposed § 52.4662–2(f) provides rules regarding the exception for qualified animal feed substances.

One commenter highlighted the need for guidance on tax-free sales under the fertilizer exception and requested clarification on whether tax-free sales are limited to one intervening sale. That commenter also requested guidance on how to make claims for credit and refund. Another commenter requested

that the Treasury Department and the IRS provide model certificates for tax-free sales. The proposed regulations address those issues. Proposed § 52.4662–2(h) provides rules regarding tax-free sales under section 4662(b)(2), (5), and (9) and clarifies that the exception is available for multiple intervening sales. The provisions in proposed § 52.4662–2(h) are similar to tax-free sale rules in other areas of excise tax and include a model exemption certificate. To lessen the burden on taxpayers, proposed § 52.4662–2(h) allows for a ''blanket'' exemption certificate that may be used for a period of up to one (1) year.

C. Sulfuric Acid Produced as a Byproduct of Air Pollution Control Equipment

Section 4662(b)(3) provides that no section 4661 tax is imposed on sulfuric acid produced solely as a byproduct of and on the same site as air pollution control equipment. The statute does not define the term ''air pollution control equipment'' for purposes of this exception. Further, the statute is silent with regard to whether the exception applies to sulfuric acid produced solely as a byproduct of and on the same site as air pollution control equipment located outside the United States.

Proposed § 52.4662–2(c) defines the term ''air pollution control equipment'' as any equipment used to comply with the Clean Air Act, including any amendments thereto, as codified in 42 U.S.C. chapter 85, or any similar provision under state law. This definition effectively limits the exception to domestically-produced sulfuric acid. The Treasury Department and the IRS request comments on the definition of ''air pollution control equipment'' in proposed § 52.4662–2(c). To the extent commenters believe the definition should be modified, the Treasury Department and the IRS request comments on the type of documentation that is available to demonstrate to the IRS that sulfuric acid produced outside the United States was, in fact, produced solely as a byproduct of and on the same site as air pollution control equipment.

D. Taxable Chemicals Produced From Coal

Section 4662(b)(4) provides that the term ''taxable chemical'' does not include any substance derived from coal. Proposed § 52.4662–2(d) defines the term ''coal'' as bituminous coal, subbituminous coal, anthracite, and lignite.

E. Intermediate Hydrocarbon Streams

Section 4662(b)(10)(A) provides that no section 4661 tax is imposed on any organic taxable chemical while such chemical is part of an intermediate hydrocarbon stream containing one or more organic taxable chemicals. Section 4662(b)(10)(B) provides that if any organic taxable chemical on which no section 4661 tax was previously imposed by reason of section 4662(b)(10)(A) is isolated, extracted, or otherwise removed from, or ceases to be part of (collectively, isolation), an intermediate hydrocarbon stream, such isolation is treated as a use by the person causing the isolation, and such person is treated as the manufacturer of the organic taxable chemical so isolated.

1. Definition of ''Organic Taxable Chemical''

Section 4662(b)(10)(D) defines ''organic taxable chemical'' as any taxable chemical that is an organic substance. At the most basic level, an organic substance is a substance that contains carbon and hydrogen atoms.

The organic substances that are listed in the table under section 4661(b) are acetylene, benzene, butane, butylene, butadiene, ethylene, methane, naphthalene, propylene, toluene, and xylene. *See* H.R. Rep. No. 99–962, 99th Cong., 2d Sess., at 328 n. 6 (1986). However, neither the statute nor the legislative history addresses the interplay between section 4662(b)(1) and (10) with regard to methane and butane. Although methane and butane are organic substances that are listed in the table in section 4661(b), they are treated as taxable chemicals only when used otherwise than as a fuel or otherwise than in the production of any motor fuel, diesel fuel, aviation fuel, or jet fuel. *See* section 4662(b)(1) and proposed § 52.4662–2(a). Therefore, methane and butane are not organic taxable chemicals at the time of isolation from an intermediate hydrocarbon stream. *See* section 4662(b)(1) and proposed § 52.4662–2(a) and (g). Proposed § 52.4662–2(g)(2)(i) clarifies that no section 4661 tax is imposed on methane or butane at the time the methane or butane is isolated from an intermediate hydrocarbon stream and includes an example to illustrate this rule.

2. Multi-Step Isolation Process

The rule in section 4661(b)(10) is clear with regard to organic taxable chemicals isolated from an intermediate hydrocarbon stream as part of a single-step isolation process. However, neither the statute nor the legislative history addresses what happens when isolation is a multi-step process.

In *Murphy Oil USA, Inc.* v. *United States,* 81 F. Supp. 2d 942 (W.D. Ark. 1999), the court considered the applicability of section 4662(b)(10) to a multi-step process of isolating propylene from a C3/C4 hydrocarbon stream. The court held that the splitting process designed to isolate and extract the propylene content from the C3/C4 stream as refinery-grade propylene was the point of isolation, even though the resulting refinery-grade propylene was a mixture of propylene and propane that could have been further processed into a purer grade of propylene. The court further held that because the weight of the propylene in the refinery-grade propylene could be determined with specificity, the section 4661 tax was imposed only on the weight of the propylene in the refinery-grade propylene.

Proposed § 52.4662–2(g)(3)(ii) follows the holding in the *Murphy Oil* case and clarifies that when the isolation of an organic taxable chemical from an intermediate hydrocarbon stream is a multi-step process, the first process that a person uses to isolate, extract, or otherwise remove the organic taxable chemical from the intermediate hydrocarbon stream (even if the organic taxable chemical is, at that time, still mixed with other substances and further processing is possible, but not required) is treated as a use by the person causing the isolation, and such person is treated as the manufacturer of the organic taxable chemical so isolated. Proposed § 52.4662–2(g)(3)(ii) further clarifies that if the organic taxable chemical is part of a chemical mixture at the time of isolation, the section 4661 tax is imposed on the weight of the entire chemical mixture, unless the person causing the isolation can establish, with specificity, the weight of the organic taxable chemical or chemicals contained in the chemical mixture.

IV. Credits and Refunds of the Section 4661 Tax

Section 4662(d) provides a mechanism for a credit or refund of the section 4661 tax with regard to certain specified uses of taxable chemicals. Multiple commenters requested that the Treasury Department and the IRS provide guidance on claims for credit and refund. One commenter requested specific guidance on the use of invoices to support credit and refund claims.

Proposed § 52.4662–4 provides rules regarding claims for credit and refund under section 4662(d). The provisions in proposed § 52.4662–4 explain the general rules, conditions to allowance,

and supporting information required for claims for credit and refund. Proposed § 52.4662–4 also includes a model certificate to support a claim for credit or refund. The approach taken in the proposed regulations is consistent with other areas of excise tax law.

V. Exports

Section 4662(e)(1)(A) provides that no section 4661 tax is imposed on the sale by the manufacturer or producer of any taxable chemical for export or for resale by the purchaser to a second purchaser for export. Section 4662(e)(1)(B) provides that rules similar to section 4221(b) (relating to exports exempt from manufacturers excise taxes codified in chapter 32) apply. Proposed § 52.4662–5(b) provides rules regarding how to effectuate tax-free sales for export under section 4662(e)(1). The rules in proposed § 52.4662–5(b) are based on the rules in § 48.4221–3 of the Manufacturers and Retailers Excise Tax Regulations, and include a model exemption certificate and a model statement of export.

Section 4662(e)(2) provides the general rule for claims for credit or refund of the section 4661 tax in the case of taxable chemicals that are exported, and taxable chemicals used as materials in the manufacture or production of a substance that is a taxable substance (that is, it is listed on the Taxable Substances List) at the time of export. Proposed § 52.4662–5(c) provides rules regarding claims for credit or refund under section 4662(e)(2).

Several commenters expressed concern about not being able to make credit or refund claims for taxable chemicals used in the manufacture of substances that meet the more than 20-percent weight or value test but have not yet been added to the Taxable Substances List. The requirement that a substance be on the Taxable Substance List at the time of export in order to make a claim for credit or refund is statutory. *See* section 4662(e)(2). The Treasury Department and the IRS request comments on possible ways to mitigate the impact of the express statutory language in section 4662(e)(2).

Section 4662(e)(3) provides a mechanism for an exporter to make claims for credit or refund. Proposed § 52.4662–5(d) provides rules regarding claims for credit or refund under section 4662(e)(3).

VI. General Rules Regarding the Section 4671 Tax

General rules regarding the section 4671 tax are set forth in proposed § 52.4671–1, including rules regarding the imposition of tax, the persons liable for tax, the attachment of tax, the amount of tax, and the calculation of the amount of tax. Proposed § 52.4671–2 provides rules regarding tax-free sales under section 4671(d)(1) and claims for credit and refund under section 4671(d)(2).

VII. Definitions Relating to Sections 4671

Proposed § 52.4672–1 provides definitions applicable to sections 4671 and 4672. To the extent there is overlap, the definitions in proposed § 52.4672–1 with respect to the section 4671 tax track the definitions in section § 52.4662–1 with respect to the section 4661 tax.

VIII. Predominant Method of Production

Sections 4671(b)(3) and 4672(a)(2) use the term ''predominant method of production.'' However, the term is undefined by statute. The legislative history is limited and provides only that with regard to the determination of substances on the Taxable Substances List, the determination is to be made ''on the basis of the predominant method of production (with respect to imported derivatives) using stoichiometric material consumption assuming a 100-percent yield.'' Conf. Rep. 962, 99th Cong., 2d Sess. (1987), 1987–1 C.B. 383, 386–7.

Proposed § 52.4672–1(b)(4) defines the term ''predominant method of production'' to mean the method used to produce the greatest number of tons of a particular substance worldwide, relative to the total number of tons of the substance produced worldwide. The definition uses worldwide production as the metric because the term ''predominant method of production'' applies only in the context of the section 4671 tax, which is imposed on imported substances.

The Treasury Department and the IRS request comments on the predominant method of production, or any other relevant information (such as the weight or value of the taxable chemicals used in the manufacture or production of the taxable substance), for the following taxable substances that are included in the statutory list in section 4672(a)(3): ferronickel; formaldehyde; hydrogen peroxide; methanol; nickel powders; nickel waste and scrap; polystyrene resins and copolymers; styrene-butadiene, snpf; synthetic rubber, not containing fillers; unwrought nickel; vinyl resins; vinyl resins, nspf; and wrought nickel rods and wires.

IX. Tax-Free Sales Under Section 4671(d)(1)

Section 4671(d)(1) provides that rules similar to those in section 4662(b)(2), (5), and (9) apply with respect to taxable substances used or sold for use as described in such rules. Proposed § 52.4671–2(b) provides rules regarding how to effectuate tax-free sales under section 4671(d)(1); the rules are similar to those in proposed § 52.4662–2(h).

X. Credits and Refunds Under Section 4671(d)(2)

Section 4671(d)(2) provides that rules similar to section 4662(d)(2), (3), and (4) apply with respect to taxable substances used or sold for use as described in such rules. Proposed § 52.4671–2(c) provides rules regarding claims for credit or refund under section 4671(d)(2); the rules are similar to those in proposed § 52.4662–4.

XI. Types of Substances Eligible for Addition to the Taxable Substances List

When the Superfund chemical taxes were previously in effect, Notice 89–61 provided a determination process by which importers and exporters of substances could request modifications to the Taxable Substances List pursuant to the flush language of section 4672(a)(2). Notice 89–61 provided that textile fibers, yarns, and staple, and fabricated products that are molded, formed, woven, or otherwise finished into end-use products were ineligible for addition to the Taxable Substances List. Notice 95–39 modified Notice 89–61 to allow polymers extruded in fiber form to be added to the Taxable Substances List.

Proposed § 52.4672–1(b) incorporates the rules from Notice 89–61 and Notice 95–39 regarding the types of substances that may be added to the Taxable Substances List if they otherwise meet the more than 20-percent weight or value test. These rules were also incorporated into the definition of the term ''substance'' in section 3.10 of Rev. Proc. 2022–26.

XII. Other Issues

A. Sales Between Certain Registrants

Two commenters requested that the Treasury Department and the IRS adopt a practice with respect to sales of taxable chemicals that is similar to what is in place for ''S'' registrants for fuel transactions. One commenter suggested an expansion of ''G'' registration and an allowance of tax-free sales among all ''G'' registrants.

In the fuel excise tax area, section 4081 of the Code establishes the bulk transfer system and the ability for ''S''

registrants to make tax-free sales of taxable fuel. More specifically, section 4081(a)(1)(B)(i) expressly exempts certain removals and entries of taxable fuel within the bulk transfer system and imposes registration requirements. There is no such statutory directive with regard to the Superfund chemical taxes, and such an approach would be inconsistent with the statutory text and legislative history of the section 4661 tax. Therefore, the proposed regulations do not adopt this suggestion.

B. Modifications to the Taxable Substances List

Several commenters requested the addition of substances to or the removal of substances from the Taxable Substances List. Such comments are not considered requests to add to or remove from the Taxable Substances List and will not be processed. All requests to add substances to or remove substances from the Taxable Substances List must be submitted in accordance with the procedures set forth in Rev. Proc. 2022–26, which provides the exclusive process by which importers, exporters, and other interested persons may petition to add a substance to or remove a substance from the Taxable Substances List.

C. Delayed Implementation of Superfund Chemical Taxes

Multiple commenters requested that the Treasury Department and the IRS delay implementation of the Superfund chemical taxes until January 1, 2023. The IIJA reinstates the Superfund chemical taxes as of July 1, 2022. The Treasury Department and the IRS do not have the authority to modify the effective date of the Superfund chemical taxes, which is statutory. Accordingly, the Superfund chemical taxes are effective July 1, 2022, as required by law.

D. Harmonized Tariff Schedule (HTS) and Chemical Abstract Service (CAS) Numbers

Several commenters requested that the Treasury Department and the IRS provide HTS and CAS numbers for all taxable chemicals and taxable substances to ensure uniform identification by stakeholders and the IRS.

The U.S. International Trade Commission maintains and publishes HTS numbers. The Chemical Abstract Service maintains CAS numbers. CAS is a division of the American Chemical Society, a non-profit organization that holds a congressional charter under title 36, United States Code. The Treasury Department and the IRS are considering the request to provide HTS and CAS numbers and how those numbers can be verified with the appropriate experts. The Treasury Department and the IRS request comments on the degree of specificity that would be required for HTS and CAS numbers. Specifically, the Treasury Department and the IRS request comments on the appropriate number of decimal places for the HTS and CAS numbers that would be used to identify taxable chemicals and taxable substances.

Effect on Other Documents

The following notices of determination that were issued pursuant to Notice 89–61 are revoked: 55 FR 24023–01 (June 13, 1990); 55 FR 24023–02 (June 13, 1990); 55 FR 25768–02 (June 22, 1990); 55 FR 25770–01 (June 22, 1990); 56 FR 47985–01 (Sept. 23, 1991); 56 FR 47986–01 (Sept. 23, 1991); 56 FR 47986–02 (Sept. 23, 1991); 56 FR 47987–01 (Sept. 23, 1991); 57 FR 10947–03 (Mar. 31, 1992); 58 FR 66068–01, (Dec. 17, 1993); 58 FR 66069–01 (Dec. 17, 1993); 58 FR 66069–02 (Dec. 17, 1993); 58 FR 66071–01 (Dec. 17, 1993); 58 FR 67439–01 (Dec. 21, 1993); 59 FR 11827–01 (Mar. 14, 1994; 59 FR 11828–01 (Mar. 14, 1994); 59 FR 11831–01 (Mar. 14, 1994); 59 FR 13036–02 (Mar. 18, 1994); 59 FR 13037–01 (Mar. 18, 1994); 59 FR 13038–01 (Mar. 18, 1994); 59 FR 13039–01 (Mar. 18, 1994); 59 FR 14446–01 (Mar. 28, 1994); 59 FR 14447–01, (Mar. 28, 1994); 59 FR 27652–02 (May 27, 1994); 59 FR 27653–01 (May 27, 1994);, 59 FR 27653–02 (May 27, 1994); 59 FR 31297–03 (June 17, 1994); 59 FR 31298–01 (June 17, 1994); 59 FR 31299–01 (June 17, 1994); 59 FR 35170–02 (July 8, 1994); 59 FR 35171–01 (July 8, 1994); 59 FR 35171–02 (July 8, 1994); 59 FR 37131–01 (July 20, 1994); 59 FR 45322–01 (Sept. 1, 1994); 59 FR 51663–03, (Oct. 12, 1994); 59 FR 52028–01 (Oct. 13, 1994); 60 FR 10142–03 (Feb. 23, 1995); 60 FR 19112–02 (Apr. 14, 1995); 60 FR 19113–01 (Apr. 14, 1995); 60 FR 26478–02 (May 17, 1995); 60 FR 27594–01 (May 24, 1995); 60 FR 36458–01 (July 17, 1995); 60 FR 36459–01 (July 17, 1995); 60 FR 54100–01 (Oct. 19, 1995); 60 FR 54101–01 (Oct. 19, 1995); 61 FR 13919–03 (Mar. 28, 1996); 62 FR 10310–01 (Mar. 6, 1997); 65 FR 46046–01 (July 26, 2000); 72 FR 62730–01 (Nov. 6, 2007).

Special Analyses

I. Regulatory Planning and Review—Economic Analysis

Executive Orders 13563 and 12866 direct agencies to assess costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits, including potential economic, environmental, public health and safety effects, distributive impacts, and equity. Executive Order 13563 emphasizes the importance of quantifying both costs and benefits, reducing costs, harmonizing rules, and promoting flexibility.

The proposed regulations have been designated by the Office of Information and Regulatory Affairs (OIRA) as subject to review under Executive Order 12866 pursuant to the Memorandum of Agreement (MOA, April 11, 2018) between the Treasury Department and the Office of Management and Budget (OMB) regarding review of tax regulations. OIRA has determined that the proposed rulemaking is significant and subject to review under Executive Order 12866 and section 1(b) of the Memorandum of Agreement. Accordingly, the proposed regulations have been reviewed by OMB.

A. Background

As noted earlier, CERCLA, known colloquially as ''Superfund,'' was enacted, in part, to create a hazardous substance cleanup program. Section 221 of CERCLA established the ''Hazardous Substance Response Trust Fund,'' which was funded, in part, by the Superfund chemical taxes. The Superfund chemical taxes expired on December 31, 1995.

Effective July 1, 2022, section 80201 of the IIJA reinstates the Superfund chemical taxes with certain modifications. Pursuant to section 80201(c)(3) of the IIJA, Notice 2021–66 provided initial guidance related to the Superfund chemical taxes.

B. Need for Proposed Regulations

The proposed regulations generally provide structure and clarity for the implementation of the Superfund chemical taxes as reinstated by IIJA. However, the Treasury Department and the IRS determined that there remained outstanding issues requiring clarification that should be subject to notice and comment. In addition to clarifying statutory rules in sections 4661 and 4671 regarding the Superfund chemical tax procedural rules and computation of tax, these proposed regulations provide definitions that track the statutory language and otherwise borrow from existing excise tax rules, including regulations relating to ozone-depleting chemicals and manufacturers excise taxes. The proposed regulations provide procedural guidance regarding tax-free sales of certain taxable chemicals and

taxable substances. Finally, the proposed regulations provide procedures for taxpayers to claim credits and refunds of Superfund chemical taxes paid with respect to taxable chemicals or taxable substances sold for use or used for certain purposes.

C. Baseline

The Treasury Department and the IRS have assessed the benefits and costs of the proposed regulation relative to a no-action baseline reflecting anticipated Federal income tax-related behavior in the absence of this regulation.

D. Affected Entities

The Superfund chemical taxes are excise taxes imposed on any manufacturer, producer, or importer that sells or uses taxable chemicals or taxable substances. The taxes are reported on excise tax forms, separate from corporate or individual income tax forms. The Superfund chemical taxes are expected to be paid by industrial chemical companies, which include various manufacturing, refining, and wholesaler firms. The extent to which the cost of the Superfund chemical taxes will be passed down to the eventual consumers of products containing the taxable chemicals or taxable substances is variable across a wide array of products.

After the expiration of the Superfund chemical taxes on December 31, 1995, the number of quarterly excise tax filers fell by approximately 5,500 taxpayers. This number is a reasonable estimate of the number of Superfund chemical tax filers in 1995, as the Superfund chemical taxes were the only excise taxes to have expired at that time and the Superfund petroleum tax filers would still be paying the Oil Spill Liability excise taxes, and therefore had not stopped filing quarterly excise forms. However, the make-up of the chemical and manufacturing industries is expected to have changed since the previous imposition of the Superfund chemical taxes. In addition, section 80201(c)(1) of the IIJA modifies the method under section 4672(a)(2)(B) of the Code for determining whether a substance is a taxable substance by lowering the required percentage of taxable chemicals used to produce the substance from 50 percent to 20 percent of the weight (or the value) of the materials used to produce such substance. Given the changes in the application of the Superfund chemical taxes, the Treasury Department and the IRS do not have readily available data to quantify the impact of the excise taxes. The Treasury Department and the IRS invite comments, especially data sets or analyses, on the number of affected taxpayers.

E. Economic Analysis of the Proposed Regulations

The proposed regulations provide certainty and consistency in the application of Superfund chemical taxes by providing definitions and clarifications regarding the statutes' terms and rules. In addition, the proposed regulations provide model certificates and examples for the taxpayer to follow. An economically efficient tax system generally aims to treat income and expense derived from similar economic decisions consistently across taxpayers and activities in order to reduce incentives for individuals and businesses to make choices based on tax rather than market incentives. In the absence of the guidance provided in these proposed regulations, taxpayers would bear the burden of interpreting the statute and the chances that different taxpayers might interpret the statute differently would be exacerbated. For example, two similarly-situated taxpayers might interpret the statutory provisions pertaining to the calculation of tax differently or reach different conclusions regarding eligibility for exemptions from the Superfund chemical taxes. Thus, lack of certainty may lead to very different tax liabilities for taxpayers undertaking similar activities. The Treasury Department and the IRS invite comments, especially data sets or analyses, of the impact of the proposed regulations.

II. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520) (''Paperwork Reduction Act'') requires that a federal agency obtain the approval of the OMB before collecting information from the public, whether such collection of information is mandatory, voluntary, or required to obtain or retain a benefit.

Overview

The collections of information in these proposed regulations are in: Proposed §§ 52.4662–2(g)(5) (notification certificate for intermediate hydrocarbon streams under section 4662(b)(10)); 52.4662–2(h)(2) (exemption certificate for tax-free sales for fertilizer, motor fuel, and animal feed substances under section 4662(b)); 52.4662–3(c) (notification certificate for inventory exchanges under section 4662(c)); 52.4662–4(a)(4) (supporting information required for claims for credit and refund under section 4662(d)(1)); 52.4662–4(b)(3) (supporting information required for claims for credit and refund under section 4662(d)(2)); 52.4662–4(c)(3) (supporting information required for claims for credit and refund under section 4662(d)(3)); 52.4662–4(d)(3) (supporting information required for claims for credit and refund under section 4662(d)(4)); 52.4662–4(e)(2) (certificate to support claims for credit and refund under section 4662(d)); 52.4662–5(b)(5) (exemption certificate for tax-free sales for export under section 4662(e)(1)); 52.4662–5(c)(3) (supporting information required for claims for credit and refund under section 4662(e)(2)); 52.4662–5(d)(3) (supporting information required for claims for credit and refund by the exporter under section 4662(e)(3)); 52.4671–2(b)(3) (exemption certificate for tax-free sales for fertilizer, motor fuel, and animal feed substances under section 4672(d)(1)); 52.4671–2(c)(3) (supporting information required for claims for credit or refund under section 4671(d)(2)); and 52.4672–2(c)(4) (certificate to support claims for credit or refund under section 4671(d)(2)).

Estimated Burden

The IRS Taxpayer Burden Model cannot be used to calculate reporting burden not associated with economic activity, as is the case with the required reporting in these proposed regulations. Therefore, the IRS is providing off-model estimates of the burden associated with these proposed regulations. The estimated time to complete a notification certificate is 15 to 30 minutes. It is estimated that 100 to 1,000 taxpayers will complete a notification certificate. The estimated minimum burden imposed by the notification certificate is 25 hours (100 taxpayers × .25 hours), and the estimated maximum burden imposed is 250 hours (1,000 taxpayers × .25 hours). Using a monetization rate of $98.50 (2020 dollars), the total monetized burden for the notification certificate requirement is estimated to be between $2,462.50 (25 hours × $98.50) and $24,625 (250 hours × $98.50).

The time to complete a single exemption certificate to support a tax-free sale, a certificate to support a claim for credit or refund of tax, or a statement of export is estimated to be 30 to 60 minutes, and the IRS expects that between 6,000 and 30,000 taxpayers will submit one of these documents. The estimated minimum burden imposed by these reporting requirements is 3,000 hours (6,000 taxpayers × .5 hour) and the estimated maximum burden imposed is 30,000 hours (30,000 taxpayers × 1 hour). Using a monetization rate of $98.50 (2020

dollars), total monetized burden is estimated to be between $295,500 (3,000 hours × $98.50) and $2,955,000 (30,000 hours × $98.50).

The total estimated burden for these proposed regulations is between 3,025 hours (25 hours + 3,000 hours) and 30,250 hours (250 hours + 30,000 hours). The total monetized burden under these proposed regulations is estimated to be between $297,962.50 ($2,462.50 + $295,500) and $2,979,625 ($24,625 + $2,955,000).

The collections of information contained in this notice of proposed rulemaking have been submitted to OMB for review in accordance with the Paperwork Reduction Act of 1995 (PRA, 44 U.S.C. 3507(d)) under control number 1545–2304. Written comments and recommendations for the proposed information collection can be submitted by visiting *https://www.reginfo.gov/public/do/PRAMain.* Information collection requests may be found by selecting ''Currently Under Review—Open for Public Comments'' or by using the search function. Comments on the information collections may also be sent to the Internal Revenue Service, Attn: IRS Reports Clearance Officer, SE:W:CAR:MP:T:T:SP, Washington, DC 20224. Comments on the collections of information should be received by May 30, 2023. Comments are specifically requested concerning:

Whether the proposed collections of information are necessary for the proper performance of the functions of the IRS, including whether the information will have practical utility;

The accuracy of the estimated burden associated with the proposed collections of information;

How the quality, utility, and clarity of the information to be collected may be enhanced;

How the burden of complying with the proposed collections of information may be minimized, including through the application of automated collection techniques or other forms of information technology; and

Estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid control number assigned by OMB.

Books or records relating to a collection of information must be retained as long as their contents may become material in the administration of any internal revenue law. Generally, tax returns and tax return information are confidential, as required by section 6103 of the Code.

III. Regulatory Flexibility Act

Pursuant to the Regulatory Flexibility Act (5 U.S.C. chapter 6), it is hereby certified that these proposed regulations will not have a significant economic impact on a substantial number of small entities within the meaning of section 601(6) of the Regulatory Flexibility Act.

The proposed regulations provide clarity for manufacturers, producers, and importers that sell or use taxable chemicals and for importers that sell or use taxable substances. The proposed regulations provide general rules related to the Superfund chemical taxes, including the attachment of tax, how to calculate the tax, the taxation of chemical mixtures, and supporting information required for credit or refund claims. The proposed regulations provide rules and model certificates for the statutory exceptions and special rules related to the section 4661 tax, such as for methane or butane used otherwise than as a fuel, qualified fertilizer, fuel, and animal feed substances, and tax-free sales for organic taxable chemicals are part of an intermediate hydrocarbon stream. The proposed regulations also provide rules and model certificates for the statutory exceptions to the section 4671 tax for qualified fertilizer, fuel, and animal feed substances. Accordingly, the Treasury Department and the IRS intend that the proposed rules provide clarity for manufactures, producers, and importers and consistent application of the Superfund chemical taxes.

The Treasury Department and the IRS do not have readily available data to assess how many entities may be affected by the proposed regulations. Even if a substantial number of small entities are affected, the economic impact of these regulations on small entities is not likely to be significant. The proposed regulations provide taxpayers with definitional and computational guidance regarding the Superfund chemical taxes as well as rules and model certificates for statutory exceptions to the Superfund chemical taxes. As explained in the PRA section, the record keeping obligations imposed by these proposed regulations are certificates for the statutory exceptions to Superfund chemical taxes and credit and refund claims. It is estimated that between 6,000 and 30,000 taxpayers will prepare one of such certificates annually and it will take no more than one hour to complete.

Accordingly, the Secretary certifies that these proposed regulations will not have a significant economic impact on a substantial number of small entities. The Treasury Department and the IRS specifically invite comments from any party, particularly affected small entities, on the accuracy of this certification.

Pursuant to section 7805(f), this notice of proposed rulemaking has been submitted to the Chief Counsel for the Office of Advocacy of the Small Business Administration for comment on its impact on small business.

Proposed Applicability Dates

These proposed regulations are proposed to apply to sales or uses in calendar quarters beginning on or after the date the Treasury decision adopting these rules as final regulations is published in the **Federal Register**. Taxpayers and their related parties, within the meaning of sections 267(b) and 707(b)(1) of the Code, may rely on the provisions of these proposed regulations prior to that date provided that they follow the proposed regulations in their entirety (as applicable) and in a consistent manner until the date the Treasury decision adopting these rules as final regulations is published in the **Federal Register**.

Comments and Requests for a Public Hearing

Before these proposed amendments to the regulations are adopted as final regulations, consideration will be given to comments that are submitted timely to the IRS as prescribed in the preamble under the **ADDRESSES** section. The Treasury Department and the IRS request comments on all aspects of the proposed regulations. All commenters are strongly encouraged to submit comments electronically. The Treasury Department and the IRS will publish for public availability any comment submitted electronically or on paper to its public docket on *https://www.regulations.gov.*

A public hearing will be scheduled if requested in writing by any person who timely submits electronic or written comments. Requests for a public hearing are encouraged to be made electronically. If a public hearing is scheduled, a notice of the date and time for the public hearing will be published in the **Federal Register**. Announcement 2020–4 (2020–17 I.R.B. 1) provides that until further notice, public hearings conducted by the IRS will be held telephonically. Any telephonic hearing will be made accessible to people with disabilities.

Drafting Information

The principal author of these proposed regulations is Stephanie Bland

of the Office of the Associate Chief Counsel (Passthroughs and Special Industries). However, other personnel from the Treasury Department and the IRS participated in their development.

List of Subjects in 26 CFR Part 52

Chemicals, Environmental protection, Excise taxes, Hazardous waste, Reporting and recordkeeping requirements.

Proposed Amendments to the Regulations

Accordingly, 26 CFR part 52 is proposed to be amended as follows:

PART 52—ENVIRONMENTAL TAXES

■ **Paragraph 1.** The authority citation for part 52 is amended by adding entries for §§ 52.4661–1, 52.4662–1 through 52.4662–5, 52.4671–1, 52.4671–2, 52.4672–1, and 52.4672–2 in numerical order and revising the entry for § 52.4682–3 to read in part as follows:

Authority: 26 U.S.C. 7805.

Section 52.4661–1 also issued under 26 U.S.C. 4661.

Section 52.4662–1 also issued under 26 U.S.C. 4662.

Section 52.4662–2 also issued under 26 U.S.C. 4662.

Section 52.4662–3 also issued under 26 U.S.C. 4662.

Section 52.4662–4 also issued under 26 U.S.C. 4662.

Section 52.4662–5 also issued under 26 U.S.C. 4662.

Section 52.4671–1 also issued under 26 U.S.C. 4671.

Section 52.4671–2 also issued under 26 U.S.C. 4671.

Section 52.4672–1 also issued under 26 U.S.C. 4672.

Section 52.4672–2 also issued under 26 U.S.C. 4672.

Section 52.4682–3 also issued under 26 U.S.C. 4682(c)(2).

* * * * *

■ **Par. 2.** Section 52.4661–1 is added to read as follows:

§ 52.4661–1 Imposition of tax.

(a) *In general.* Section 4661(a) of the Internal Revenue Code (Code) imposes an excise tax on any taxable chemical sold or used by the manufacturer, producer, or importer of the taxable chemical. *See* sections 4661(a)(1) and 4662(c)(1) of the Code.

(b) *Person liable for tax.* The manufacturer, producer, or importer of a taxable chemical is liable for the section 4661 tax.

(c) *Attachment of tax*—(1) *In general.* The section 4661 tax attaches when the manufacturer, producer, or importer of a taxable chemical first sells or uses the taxable chemical. No section 4661 tax attaches when the manufacturer, producer, or importer of a chemical mixture (as defined in § 52.4662–1(c)(1)) containing one or more tax-paid chemicals (as defined in § 52.4662–1(c)(12)), or a subsequent purchaser of such chemical mixture, dilutes the chemical mixture with a solvent to change the concentration of the tax-paid chemical or chemicals in the chemical mixture, provided the solvent is not a taxable chemical.

(2) *Foreign manufacturers.* No section 4661 tax attaches to a foreign manufacturer's sale of a substance listed in the table under section 4661(b) to an importer because the substance is not a taxable chemical at the time of sale. *See* section 4662(a)(1). Instead, the section 4661 tax attaches to the importer's first sale or use of the taxable chemical.

(3) *Taxable chemical that is part of an imported chemical mixture.* In the case of a taxable chemical that is part of an imported chemical mixture that is not a taxable substance (as defined in section 4672(a) and § 52.4672–1(b)(8)), the section 4661 tax attaches to the importer's first sale or use of the chemical mixture.

(4) *Ores*—(i) *In general.* In the case of a taxable chemical that is derived from an ore, neither the mining of the ore nor the extraction of the taxable chemical from the ore is a taxable event. Instead, the section 4661 tax attaches to the first sale or use of the taxable chemical by the manufacturer, producer, or importer after extraction of the taxable chemical from the ore, and the person that extracts the taxable chemical from the ore is the manufacturer of the taxable chemical. For purposes of this paragraph (c)(4)(i), the term *extraction of a taxable chemical from the ore* means the first process that a person uses in the United States to separate the taxable chemical from the ore. See paragraph (c)(4)(ii) of this section for the special rule regarding chromite.

(ii) *Chromite.* The mining of chromite, which is an ore, is not a taxable event. Instead, tax attaches to the first sale or use of chromite by the manufacturer, producer, or importer after the chromite is mined. For domestically-mined chromite, the person that mines the chromite is the manufacturer.

(d) *Procedural rules.* Part 40 of this chapter provides rules related to filing excise tax returns, making semimonthly deposits of excise tax, making payments of excise tax, and other procedural rules. *See* §§ 52.0–1 and 40.0–1(a) of this chapter. Each business unit that has, or is required to have, a separate employer identification number is treated as a separate person for purposes of filing excise tax returns, making semimonthly deposits of excise tax, making payments of excise tax, and the registration requirements under section 4662(b)(10)(C) and (c)(2)(B). *See* § 40.0–1(d) of this chapter.

(e) *Amount of tax.* The section 4661 tax is imposed as a rate per ton of taxable chemical sold or used by the manufacturer, producer, or importer. *See* section 4661(b) for the rate of tax per ton of each taxable chemical.

(f) *Calculation of tax*—(1) *Overview.* The section 4661 tax is calculated by multiplying the number of tons of the taxable chemical sold or used by the manufacturer, producer, or importer by the tax rate applicable to the taxable chemical under section 4661(b). In the case of a fraction of a ton, the tax is calculated by adding the number of whole tons (if any) and the number of fractional tons of the taxable chemical, and then multiplying the sum of those numbers by the tax rate applicable to the taxable chemical. *See* section 4662(a)(5).

(2) *Determination of weight*—(i) *In general.* The weight of a taxable chemical is the actual weight of the taxable chemical at the time of sale or use by the manufacturer, producer, or importer, measured in tons.

(ii) *Imported chemical mixtures.* In the case of a taxable chemical that is part of an imported chemical mixture that is not a taxable substance, the section 4661 tax is imposed on the actual weight of each taxable chemical in the chemical mixture at the time of sale or use of the chemical mixture by the importer. If there are multiple taxable chemicals in the chemical mixture, the amount of tax is calculated separately for each taxable chemical in the chemical mixture.

(iii) *Conversion required for volumetric measurements.* Any volumetric measurement of a taxable chemical must be converted to a weight measurement. To calculate the weight (in pounds) of a taxable chemical from a volumetric measurement (in cubic feet), the volume of the taxable chemical (in cubic feet) is multiplied by the density of the taxable chemical (in pounds per cubic foot). To convert a volumetric measurement to a weight measurement for purposes of the section 4661 tax, the pressure and temperature used to determine density must be the same as the pressure and temperature used to determine volume.

(g) *Examples.* The following examples illustrate the rules of this section.

(1) *Example 1.* X, a foreign manufacturer of potassium hydroxide, sells 10 tons of potassium hydroxide to Y, a domestic corporation. Y enters the 10 tons of potassium hydroxide into the United States for consumption, use, or

warehousing, and then sells it to Z, a domestic corporation. Under these facts, Y is the importer of the potassium hydroxide. The section 4661 tax attaches when Y sells the potassium hydroxide to Z. Y is liable for the section 4661 tax. The section 4661 tax is calculated by multiplying 10 tons (the weight of the potassium hydroxide) by $0.44 (the rate of tax per ton of potassium hydroxide). The amount of section 4661 tax is $4.40.

(2) *Example 2.* X, a foreign corporation, sells nickel ore to Y, a domestic corporation. Y enters the nickel ore into the United States for consumption, use, or warehousing, and then extracts nickel from the ore. Y sells 10 tons of the nickel to Z, a domestic corporation. Z further processes the nickel to remove impurities and then uses the nickel to create an alloy. Under these facts, Y is the manufacturer of the nickel. The section 4661 tax attaches when Y sells the nickel to Z. Y is liable for the section 4661 tax. The section 4661 tax is calculated by multiplying 10 tons (the weight of the nickel) by $8.90 (the rate of tax per ton of nickel). The amount of section 4661 tax is $89.00.

(3) *Example 3.* X, a domestic producer of chromite, sells 3,500 pounds of chromite to Y, a domestic corporation. The section 4661 tax attaches when X sells the chromite to Y. X is liable for the section 4661 tax. The section 4661 tax is calculated by adding the number of whole and fractional tons of chromite (1 ton + .75 ton = 1.75 tons), and then multiplying 1.75 tons by $3.04 (the rate of tax per ton of chromite). The amount of section 4661 tax is $5.32.

(4) *Example 4.* X, an importer, enters 1.2 tons of a chemical mixture comprised of 98.3 percent sulfuric acid and 1.7 percent water for consumption, use, or warehousing. X sells the chemical mixture to Y, a domestic corporation. The section 4661 tax attaches when X sells the chemical mixture to Y. X is liable for the section 4661 tax. The section 4661 tax is calculated based on the weight of the sulfuric acid in the chemical mixture (98.3% × 1.2 tons = 1.18 tons), and then multiplying 1.18 tons by $0.52 (the rate of tax per ton of sulfuric acid). The amount of section 4661 tax is $0.61.

(5) *Example 5.* X, an importer, enters 1.2 tons of a chemical mixture comprised of 98.3 percent sulfuric acid and 1.7 percent water for consumption, use, or warehousing. X sells the chemical mixture to Y, a domestic corporation. Y adds water to the chemical mixture, resulting in a chemical mixture of 93 percent sulfuric acid and 7 percent water, and sells the chemical mixture to Z, a domestic corporation. The section 4661 tax attaches when X sells the chemical mixture to Y. X is liable for the section 4661 tax. The section 4661 tax is calculated based on the weight of the sulfuric acid in the chemical mixture (98.3% × 1.2 tons = 1.18 tons), and then multiplying 1.18 tons by $0.52 (the rate of tax per ton of sulfuric acid). The amount of section 4661 tax is $0.61. No additional section 4661 tax is imposed when Y dilutes the chemical mixture by adding water or when Y sells the diluted chemical mixture to Z.

(h) *Cross references*—(1) *Definitions.* For definitions that relate to sections 4661 and 4662, see section 4662(a) and § 52.4662–1.

(2) *Exceptions and special rules.* For exceptions and special rules applicable to the section 4661 tax, see section 4662(b) and § 52.4662–2.

(3) *Inventory exchanges.* For special rules related to inventory exchanges, see section 4662(c)(2) and § 52.4662–3.

(4) *Credit or refund of tax.* For rules related to credits and refunds of the section 4661 tax, see section 4662(d) and § 52.4662–4.

(5) *Exports.* For rules related to exports, see section 4662(e) and § 52.4662–5.

(i) *Applicability date.* This section applies to sales or uses in calendar quarters beginning on or after [date of publication of final regulations in the **Federal Register**].

■ **Par. 3.** Section 52.4662–1 is added to read as follows:

§ 52.4662–1 Taxable chemical; other definitions.

(a) *Overview.* This section provides definitions for purposes of sections 4661 and 4662 of the Internal Revenue Code (Code), § 52.4661–1, this section, and §§ 52.4662–2 through 52.4662–5.

(b) *Taxable chemical*—(1) *In general.* (i) Except as provided in section 4662(b), the term *taxable chemical* means any substance that is:

(A) Listed in the table under section 4661(b); and

(B) Manufactured or produced in the United States, or entered into the United States for consumption, use, or warehousing. *See* section 4662(a)(1).

(ii) A substance is a taxable chemical only if it satisfies both paragraphs (b)(1)(i) and (ii) of this section. For rules regarding paragraph (b)(1)(i) of this section, see paragraph (b)(2) of this section. For the definition of *entered into the United States for consumption, use, or warehousing* as it relates to the second prong of the definition, see paragraph (c)(2) of this section.

(2) *Substances listed in the table under section 4661(b).* A substance is listed in the table under section 4661(b), and therefore satisfies paragraph (b)(1)(i) of this section, if it has the same name and molecular formula as a substance listed in the table under section 4661(b). All isomeric forms of a substance listed in the table under section 4661(b) are treated as having the same name and molecular formula of the substance. Therefore, except as provided in section 4662(b)(7) with respect to xylene, an isomer of a substance listed in the table under section 4661(b) is a substance listed in the table under section 4661(b). The physical state of a substance (that is, solid, liquid, or gas) is immaterial. See paragraph (b)(3) of this section for the name and the molecular formula, or chemical symbol, of each substance listed in the table under section 4661(b).

(3) *Molecular formulas and chemical symbols.* The following table provides the name and molecular formula or chemical symbol for each substance listed in the table under section 4661(b):

TABLE 1 TO PARAGRAPH (b)(3)

Name	Molecular formula or chemical symbol
Acetylene	C_2H_2
Benzene	C_6H_6
Butane	C_4H_{10}
Butylene	C_4H_8
Butadiene	C_4H_6
Ethylene	C_2H_4
Methane	CH_4
Naphthalene	$C_{10}H_8$
Propylene	C_3H_6
Toluene	C_7H_8
Xylene	C_8H_{10}
Ammonia	NH_3
Antimony	Sb
Antimony trioxide	SbO_3
Arsenic	As
Arsenic trioxide	AsO_3
Barium sulfide	BaS
Bromine	Br
Cadmium	Cd
Chlorine	Cl
Chromium	Cr
Chromite	$FeCr_2O_4$ and $MgCr_2O_4$
Potassium dichromate	$K_2Cr_2O_7$
Sodium dichromate	$NaCr_2O_7$
Cobalt	Co
Cupric sulfate	$CuSO_4$
Cupric oxide	CuO
Cuprous oxide	Cu_2O
Hydrochloric acid	HCl
Hydrogen fluoride	HF
Lead oxide	PbO
Mercury	Hg
Nickel	Ni
Phosphorus	P
Stannous chloride	$SnCl_2$
Stannic chloride	$SnCl_4$
Zinc chloride	$ZnCl_2$
Zinc sulfate	$ZnSO_4$
Potassium hydroxide	KOH
Sodium hydroxide	NaOH
Sulfuric acid	H_2SO_4

TABLE 1 TO PARAGRAPH (b)(3)—Continued

Name	Molecular formula or chemical symbol
Nitric acid	HNO_3

(4) *Special rule for ores.* Except for chromite, an ore is not a taxable chemical.

(5) *Special rule for methane and butane.* For rules regarding the treatment of methane and butane as taxable chemicals, see section 4662(b)(1) and § 52.4662–2(a).

(6) *Special rule for substances derived from coal.* For rules regarding the exclusion from the definition of taxable chemical for substances derived from coal, see section 4662(b)(4) and § 52.4662–2(d).

(7) *Special rule for xylene.* For a special rule regarding separated isomers of xylene, see section 4662(b)(7).

(8) *Example.* X, a domestic corporation, produces isobutylene in the United States. Isobutylene is an isomer of butylene and has the molecular formula C_4H_8. The isobutylene is a taxable chemical because it is a substance listed in the table under section 4661(b) as required by section 4662(a)(1)(A), and it is produced in the United States as required by section 4662(a)(1)(B).

(c) *Other definitions*—(1) *Chemical mixture.* The term *chemical mixture* means a substance composed of two or more physically-combined components that are not chemically bonded. Chemical mixtures include alloys, solutions, suspensions, and colloids.

(2) *Entry for consumption, use, or warehousing*—(i) *In general.* Except as otherwise provided in this paragraph (c)(2), the term *entry for consumption, use, or warehousing,* when used with respect to any goods, means:

(A) Brought into the customs territory of the United States (customs territory) if applicable customs law requires that the goods be entered into the customs territory for consumption, use, or warehousing;

(B) Admitted into a foreign trade zone for any purpose if like goods brought into the customs territory would be entered into the customs territory for consumption, use, or warehousing; or

(C) Imported into any other part of the United States for any purpose if like goods brought into the customs territory would be entered into the customs territory for consumption, use, or warehousing.

(ii) *Entry for transportation and exportation.* Goods entered into a customs territory for transportation and exportation are not goods entered into the customs territory for consumption, use, or warehousing.

(iii) *Multiple entries.* In the case of multiple entries described in paragraph (c)(2)(i) of this section, only the first entry is taken into account.

(3) *Exportation.* The term *exportation* means the severance of a taxable chemical from the mass of things belonging within the United States with the intention of uniting it with the mass of things belonging within a foreign country.

(4) *Exporter.* The term *exporter* means the person named as shipper or consignor in the export bill of lading.

(5) *Importer*—(i) *In general.* The term *importer* means the person entering the taxable chemical for consumption, use, or warehousing. *See* section 4662(a)(3). If the person entering the taxable chemical for consumption, use, or warehousing is merely acting as an agent or a customs broker for another person, then the agent or customs broker is not the importer and the importer is the first person in the United States to sell or use the taxable chemical after entry of the taxable chemical for consumption, use, or warehousing.

(ii) *Drop ship businesses.* If a drop ship business in the United States purchases or otherwise arranges for a person outside the United States to ship a chemical listed in the table under section 4661(b) directly to a purchaser in the United States, the drop ship business is the importer of the chemical. If a drop ship business outside the United States purchases or otherwise arranges for a person outside the United States to ship a chemical listed in the table under section 4661(b) directly to a purchaser in the United States, the purchaser in the United States is the importer of the chemical. For purposes of this paragraph (c)(5)(ii), the term *drop ship business* means a person that sells the chemical or arranges for purchasers to purchase the chemical, and uses a third party to fill the order by shipping the chemical directly to the purchaser. The determination of whether a person is a drop ship business is made on a sale-by-sale basis.

(6) *Manufacturer*—(i) *In general.* The term *manufacturer* includes a producer. A manufacturer is any person that produces a taxable chemical from new or raw material, feedstocks, or other substances, or from scrap, salvage, waste, or recycled substances. A manufacturer includes any person that produces a taxable chemical from the mining process, or extracts, isolates, separates, or otherwise removes a taxable chemical from an ore or from another substance. A manufacturer also includes any person that produces a taxable chemical by processing or manipulating a substance, such as through the oxidation process. The term *manufacturer* does not include a person that dilutes a chemical mixture comprised of one or more tax-paid chemicals with a solvent that is not a taxable chemical.

(ii) *Contract manufacturing.* If a person manufactures or produces a taxable chemical for a second person, pursuant to a contract, order, or agreement and in accordance with the second person's specifications, or if a person manufactures or produces a taxable chemical for a second person from materials owned by the second person, the second person is treated as the manufacturer of the taxable chemical manufactured by the first person.

(7) *Molecular formula.* The term *molecular formula* means a chemical formula that shows the number and kinds of atoms in the substance.

(8) *Sale.* The term *sale* means the transfer of title or substantial incidents of ownership (whether or not delivery to, or payment by, the purchaser has been made) in a taxable chemical for a consideration, which may include, but is not limited to, money, services, or property.

(9) *Section 4661 tax.* The term *section 4661 tax* means the excise tax imposed by section 4661(a) of the Code on any taxable chemical sold or used by the manufacturer, producer, or importer of the taxable chemical.

(10) *Taxable substance.* The term *taxable substance* has the meaning given to such term by section 4671(a) of the Code and § 52.4672–1(b)(8).

(11) *Taxable chemical registrant.* The term *taxable chemical registrant* means a person that is registered by the Internal Revenue Service (IRS) under Activity Letter ''G.'' A person may apply for ''G'' registration by completing Form 637, *Application for Registration for Certain Excise Tax Activities,* and submitting the completed form to the IRS.

(12) *Tax-paid chemical.* The term *tax-paid chemical* means a taxable chemical on which the section 4661 tax has been paid.

(13) *Ton.* The term *ton* means 2,000 pounds. In the case of any taxable chemical measured by volume, the term *ton* means the amount of such taxable chemical, in cubic feet, that is the equivalent of 2,000 pounds on a molecular weight basis. *See* section 4662(a)(4) and § 52.4661–1(f)(2)(iii).

(14) *United States.* The term *United States* has the meaning given to such

term by section 4612(a)(4) of the Code. *See* section 4662(a)(2).

(15) *Use.* Except as otherwise provided in section 4662 and § 52.4662–2, a taxable chemical is used when it is consumed, when it functions as a catalyst, when its chemical composition changes, when it is used in the manufacture or production of a chemical mixture or other substance (including by mixing or combining the taxable chemical with other substances), or when it is put into service in a trade or business for the production of income. The loss or destruction of a taxable chemical through spillage, fire, natural degradation, or other casualty is not a use of the chemical. The mere manufacture or production of a taxable chemical is not a use of that chemical.

(d) *Applicability date.* This section applies to sales or uses in calendar quarters beginning on or after [date of publication of final regulations in the **Federal Register**].

■ **Par. 4.** Section 52.4662–2 is added to read as follows:

§ 52.4662–2 Exceptions and special rules.

(a) *Methane or butane used as a fuel*—(1) *In general.* Methane or butane is treated as a taxable chemical only if it is used otherwise than as a fuel, or otherwise than in the manufacture or production of any motor fuel, diesel fuel, aviation fuel, or jet fuel. Any person using methane or butane otherwise than as a fuel, or otherwise than in the manufacture or production of any motor fuel, diesel fuel, aviation fuel, or jet fuel, is treated as the manufacturer of the methane or butane and the tax imposed by section 4661(a) of the Code attaches at the time such person so uses the methane or butane. *See* section 4662(b)(1) of the Code. See section 4662(b)(10) and paragraph (g) of this section regarding the exception for hydrocarbon streams containing mixtures of organic taxable chemicals.

(2) *Use otherwise than as a fuel.* Methane or butane is used otherwise than as a fuel when it is used other than in the production of energy. For example, methane or butane is used otherwise than as a fuel when it is used as a coolant. Conversely, methane or butane is used as a fuel when it is consumed in the production of energy. For example, methane or butane is used as a fuel when it is consumed in an internal combustion engine to power a vehicle, when it is consumed in an engine to power an aircraft, or when it is consumed in a furnace, cooking appliance, or lighter to produce heat.

(3) *Examples.* The following examples illustrate the rules in paragraph (a)(2) of this section.

(i) *Example 1.* X, a domestic corporation, produces methane in the United States and uses it to fire the furnaces at X's refinery. The methane is not treated as a taxable chemical because it is used as a fuel by X.

(ii) *Example 2.* X, a domestic corporation, produces methane in the United States and sells it to Y, a domestic corporation. Y uses the methane in the production of antifreeze. The methane is not treated as a taxable chemical until Y uses the methane in the production of antifreeze. Y is treated as the manufacturer of the methane and the section 4661 tax attaches at the time Y uses the methane in the production of antifreeze. Y is liable for the section 4661 tax.

(b) *Substances used in the production of fertilizer*—(1) *In general.* No section 4661 tax is imposed in the case of nitric acid, sulfuric acid, ammonia, or methane used to produce ammonia (collectively, fertilizer chemicals, or individually, fertilizer chemical) that is a qualified fertilizer substance. *See* section 4662(b)(2)(A). Although taxable chemicals other than fertilizer chemicals may be qualified fertilizer substances, the section 4662(b)(2) exception does not apply to such other taxable chemicals. For example, zinc sulfate used by the manufacturer to produce a qualified fertilizer substance does not qualify for the exception in section 4662(b)(2).

(2) *Definitions*—(i) *Qualified fertilizer substance.* Under section 4662(b)(2)(B), the term *qualified fertilizer substance* means:

(A) Any substance used by the manufacturer, producer, or importer in a qualified fertilizer use;

(B) Any substance sold for use by any purchaser in a qualified fertilizer use; or

(C) Any substance sold for resale by any purchaser for use, or resale for ultimate use, in a qualified fertilizer use.

(ii) *Qualified fertilizer use.* The term *qualified fertilizer use* means any use in the manufacture or production of fertilizer or for direct application as a fertilizer. *See* section 4662(b)(2)(C). The term *qualified fertilizer use* includes the act of putting fertilizer on crops or croplands.

(iii) *Fertilizer.* The term *fertilizer* means a substance used to improve the growth of plants. The term *fertilizer* does not include pesticides, insecticides, herbicides or fungicides.

(3) *Taxation of nonqualified sale or use.* If no section 4661 tax was imposed on the sale or use of fertilizer chemicals by reason of the exception in section 4662(b)(2), the first person that sells or uses any such chemical other than as a qualified fertilizer substance is treated as the manufacturer of such chemical. *See* section 4662(b)(2)(D). When a fertilizer chemical is sold or used to produce both a qualified fertilizer substance and a substance that is not a qualified fertilizer substance (derivative substance), the section 4661 tax is imposed on the fertilizer chemical used to produce the derivative substance at the time the manufacturer, producer, or importer sells or uses the fertilizer chemical. The amount of the section 4661 tax is calculated based on the weight of the fertilizer chemical sold or used to produce the derivative substance.

(4) *Tax-free sales.* See paragraph (h) of this section for rules related to tax-free sales.

(5) *Credit or refund of tax.* See section 4662(d)(2) and § 52.4662–4(b) for rules related to credits and refunds of the section 4661 tax.

(c) *Sulfuric acid produced as a byproduct of air pollution control.* No section 4661 tax is imposed on sulfuric acid produced solely as a byproduct of and on the same site as air pollution control equipment. *See* section 4662(b)(3). As used in section 4662(b)(3), the term *air pollution control equipment* means any equipment used to comply with the Clean Air Act, including any amendments thereto, as codified in 42 U.S.C. chapter 85, or any similar provision under state law.

(d) *Substances derived from coal*—(1) *In general.* Under section 4662(b)(4), the term *taxable chemical* does not include any substance to the extent derived from coal. As used in section 4662(b)(4), the term *coal* means bituminous coal, subbituminous coal, anthracite, and lignite. A substance is not derived from coal merely because coal served as a source of energy in the production of the substance.

(2) *Example.* X, a domestic corporation, uses a high-temperature carbonization process to convert coal to coke and coal tar. X then cracks the coal tar to produce naphthalene. The naphthalene is derived from coal and the exception in section 4662(b)(4) applies. Therefore, the naphthalene is not a taxable chemical.

(e) *Substances used in the production of motor fuel*—(1) *In general.* No section 4661 tax is imposed in the case of acetylene, benzene, butylene, butadiene, ethylene, naphthalene, propylene, toluene, or xylene (collectively, fuel chemicals, or individually, a fuel chemical) that is a qualified fuel substance. *See* section 4662(b)(5)(A). Although taxable chemicals other than fuel chemicals may be qualified fuel substances, the section 4662(b)(5)

exception does not apply to such other taxable chemicals.

(2) *Definitions*—(i) *Qualified fuel substance.* Under section 4662(b)(5)(B), the term *qualified fuel substance* means:

(A) Any substance used by the manufacturer, producer, or importer thereof in a qualified fuel use;

(B) Any substance sold for use by any purchaser in a qualified fuel use; or

(C) Any substance sold for resale by any purchaser for use, or resale for ultimate use, in a qualified fuel use.

(ii) *Qualified fuel use.* A *qualified fuel use* means any use in the manufacture or production of any motor fuel, diesel fuel, aviation fuel, or jet fuel, or any use of a fuel chemical as such a fuel. *See* section 4662(b)(5)(C).

(3) *Taxation of nonqualified sale or use.* If no section 4661 tax was imposed on the sale or use of a fuel chemical by reason of the exception in section 4662(b)(5), the first person that sells or uses such fuel chemical other than as a qualified fuel substance is treated as the manufacturer of such fuel chemical. *See* section 4662(b)(5)(E). When a fuel chemical is sold or used to produce both a qualified fuel substance and a substance that is not a qualified fuel substance (derivative substance), the section 4661 tax is imposed on the fuel chemical sold or used as the derivative substance at the time the manufacturer, producer, or importer sells or uses the fuel chemical. The amount of the section 4661 tax is calculated based on the weight of the fuel chemical sold or used to produce the derivative substance.

(4) *Tax-free sales.* See paragraph (h) of this section for rules related to tax-free sales.

(5) *Credit or refund of tax.* See section 4662(d)(3) and § 52.4662–4(c) for rules related to credits and refunds of the section 4661 tax.

(f) *Substances used in the production of animal feed*—(1) *In general.* No section 4661 tax is imposed in the case of nitric acid, sulfuric acid, ammonia, or methane used to produce ammonia (each, an animal feed chemical, and collectively, animal feed chemicals) that is a qualified animal feed substance. *See* section 4662(b)(9). Although taxable chemicals other than animal feed chemicals may be qualified animal feed substances, the section 4662(b)(9) exception does not apply to such other taxable chemicals.

(2) *Definitions*—(i) *Qualified animal feed substance.* Under section 4662(b)(9)(B), the term *qualified animal feed substance* means:

(A) Any substance used by the manufacturer, producer, or importer in a qualified animal feed use;

(B) Any substance sold for use by any purchaser in a qualified animal feed use; or

(C) Any substance sold for resale by any purchaser for use, or resale for ultimate use, in a qualified animal feed use.

(ii) *Qualified animal feed use.* The term *qualified animal feed use* means any use in the manufacture or production of animal feed, animal feed supplements, or ingredients used in animal feed or animal feed supplements. *See* section 4662(b)(9)(C).

(3) *Taxation of nonqualified sale or use.* If no section 4661 tax was imposed on the sale or use of animal feed chemicals by reason of the exception in section 4662(b)(9), the first person that sells or uses any such chemical other than as a qualified animal feed substance is treated as the manufacturer of the chemical. *See* section 4662(b)(9)(D). When an animal feed chemical is sold or used to produce both a qualified animal feed substance and a substance that is not a qualified animal feed substance (derivative substance), the section 4661 tax is imposed on the animal feed chemical sold or used to produce the derivative substance at the time the manufacturer, producer, or importer sells or uses the animal feed chemical. The amount of the section 4661 tax is calculated based on the weight of the animal feed chemical sold or used to produce the derivative substance.

(4) *Tax-free sales.* See paragraph (h) of this section for rules related to tax-free sales.

(5) *Credit or refund of tax.* See section 4662(d)(4) and § 52.4662–4(d) for rules related to credits and refunds of the section 4661 tax.

(g) *Hydrocarbon streams containing mixtures of organic taxable chemicals*—(1) *In general.* No section 4661 tax is imposed on any organic taxable chemical while such chemical is part of an intermediate hydrocarbon stream containing one or more organic taxable chemicals, if the requirements in paragraph (g)(4) of this section are satisfied. *See* section 4662(b)(10)(A). For purposes of section 4662(b)(10), the term *intermediate hydrocarbon stream* means a mixture of organic chemicals that requires further distillation or processing to manufacture or produce a taxable chemical.

(2) *Organic taxable chemical*—(i) *In general.* For purposes of section 4662(b)(10), the term *organic taxable chemical* means any taxable chemical that is an organic substance. *See* section 4662(b)(10)(D). The organic substances that are listed in the table in section 4661(b) are acetylene, benzene, butane, butylene, butadiene, ethylene, methane, naphthalene, propylene, toluene, and xylene. However, only acetylene, benzene, butylene, butadiene, ethylene, naphthalene, propylene, toluene, and xylene are organic taxable chemicals (provided they also satisfy the requirements of section 4662(a)(1)(B)). Although methane and butane are organic substances that are listed in the table in section 4661(b), they are treated as organic taxable chemicals only when used otherwise than as a fuel or otherwise than in the manufacture or production of any motor fuel, diesel fuel, aviation fuel, or jet fuel (provided they also satisfy the requirements of section 4662(a)(1)(B)). *See* section 4662(b)(1) and paragraph (a) of this section. Therefore, methane and butane are not organic taxable chemicals at the time of isolation from an intermediate hydrocarbon stream. *See* section 4662(b)(1) and paragraph (a) of this section. As a result, no section 4661 tax is imposed on methane or butane at the time of isolation from an intermediate hydrocarbon stream.

(ii) *Example.* X, a domestic corporation, is a refiner of petroleum products. X uses a fluid catalytic cracking process to crack gas oil and the fluid catalyst into other chemicals, including liquefied petroleum gas (LPG). X next uses a fractioning process to separate a stream of C3/C4 (which contains propane, propylene, butane, and other chemicals) from the other chemical components of LPG. After fractionation, X uses a splitting process to separate the butane from the other chemicals contained in the C3/C4 stream. X sells the butane to Y, a domestic corporation, which blends the butane into gasoline. In this scenario, no section 4661 tax is imposed when X isolates the butane through the splitting process, because the butane is not an organic taxable chemical at the time the splitting process occurs. Further, no section 4661 tax is imposed on X's sale of the butane to Y because the butane is not a taxable chemical at the time of the sale. Additionally, no section 4661 tax is imposed on Y's use of the butane because Y does not use the butane otherwise than as a fuel or otherwise than in the manufacture or production of any motor fuel, diesel fuel, aviation fuel or jet fuel.

(3) *Isolation of organic taxable chemical from intermediate hydrocarbon stream*—(i) *One-step isolation process.* If any organic taxable chemical on which no section 4661 tax was previously imposed by reason of section 4662(b)(10)(A) is isolated, extracted, or otherwise removed from, or ceases to be part of (collectively,

isolation), an intermediate hydrocarbon stream, such isolation is treated as a use by the person causing the isolation, and such person is treated as the manufacturer of the organic taxable chemical so isolated. *See* 4662(b)(10)(B).

(ii) *Multi-step isolation process.* When the isolation of an organic taxable chemical from an intermediate hydrocarbon stream is a multi-step process, the first process that a person uses to isolate, extract, or otherwise remove the organic taxable chemical from the intermediate hydrocarbon stream (even if the organic taxable chemical is, at that time, still mixed with other substances and further processing is possible, but not required) is treated as a use by the person causing the isolation, and such person is treated as the manufacturer of the organic taxable chemical so isolated. If the taxable chemical is part of a chemical mixture at the time of isolation, the section 4661 tax is imposed on the weight of the entire chemical mixture, unless the person causing the isolation can establish, with specificity, the weight of the taxable chemical contained in the chemical mixture.

(iii) *Example.* X, a domestic corporation, is a refiner of petroleum products. X uses a fluid catalytic cracking process to crack gas oil and the fluid catalyst into lighter chemicals, including liquefied petroleum gas (LPG). X next uses a fractioning process to separate a stream of C3/C4 (which contains propane, propylene, butane, and other chemicals) from the other chemical components of LPG. After fractionation, X uses a splitting process to separate the propylene from the other chemicals contained in the C3/C4 stream, resulting in a propane and propylene mixture commonly referred to as refinery grade propylene. X sells the refinery grade propylene to Y, a domestic corporation, which further refines the refinery grade propylene to remove most of the propane and other contaminants. In this scenario, X's splitting process is a use of the propylene by X, and X is treated as the manufacturer of the propylene. Therefore, X is liable for the section 4661 tax. If X can establish, with specificity, the weight of the propylene in the mixture, the amount of the section 4661 tax is calculated based only on the weight of the propylene in the mixture. If X cannot establish, with specificity, the weight of the propylene in the mixture, the amount of the section 4661 tax is calculated based on the weight of the mixture.

(4) *Requirements.* The exception in section 4662(b)(10) applies only if, at the time of the sale of any intermediate hydrocarbon stream containing one or more or organic taxable chemicals, all of the following requirements are satisfied:

(i) Both parties are taxable chemical registrants;

(ii) The seller has an unexpired notification certificate from the purchaser; and

(iii) The seller has no reason to believe that any information in the notification certificate is false.

(5) *Notification certificate*—(i) *Overview.* The certificate to be provided by the purchaser of an intermediate hydrocarbon stream to the seller consists of a statement that is signed under penalties of perjury by a person with authority to bind the purchaser, is in substantially the same form as the model certificate in paragraph (g)(5)(ii) of this section, and contains all of the information necessary to complete such model certificate. A new certificate must be given if any information in the certificate changes or the purchaser informs the seller that the certificate is no longer accurate. The certificate expires on the earlier of the date the purchaser provides a new certificate or the date the purchaser is notified by the Internal Revenue Service (IRS) that the purchaser's registration has been revoked or suspended.

(ii) *Model certificate.*

Notification Certificate of Taxable Chemical Registrant

_____

_____

_____

Name, address, and employer identification number of person receiving certificate

The undersigned taxable chemical registrant (Registrant) hereby certifies under penalties of perjury that Registrant is registered by the Internal Revenue Service (IRS) under activity letter ''G'' with registration number ____, and that Registrant's registration has not been revoked or suspended by the IRS.

Registrant understands that the fraudulent use of this certificate may subject Registrant and all parties making such fraudulent use of this certificate to a fine or imprisonment, or both, together with the costs of prosecution.

_____

Signature and date signed

_____

Printed or typed name of person signing

_____

Title of person signing

_____

Name of Registrant

_____

Employer identification number

_____

Address of Registrant

(iii) *Use of letter of registration as notification certificate prohibited.* A copy of the letter of registration issued to a taxable chemical registrant by the IRS is not a notification certificate described in paragraph (g)(5) of this section and cannot be used as a substitute for a notification certificate.

(h) *Tax-free sales of taxable chemicals*—(1) *In general.* To make a tax-free sale pursuant to section 4662(b)(2), (5), or (9), the manufacturer, producer, or importer (or, in the case of resales, the reseller) of the taxable chemical must obtain an unexpired exemption certificate from the purchaser, in the form prescribed in paragraph (h)(2) of this section, prior to or at the time of sale, and the manufacturer, producer, importer, or reseller must have no reason to believe that any information in the certificate regarding the use of the taxable chemical is false. If the manufacturer, producer, importer, or reseller does not obtain an unexpired exemption certificate by the time of the sale, or if the manufacturer, producer, importer, or reseller has reason to believe that any information in the certificate regarding the use of the taxable chemical is false, the manufacturer, producer, importer, or reseller is liable for the section 4661 tax. However, if the purchaser subsequently uses the taxable chemical in the manner described in section 4662(b)(2), (5), or (9), the purchaser may file a claim for credit or refund pursuant to section 4662(d) and § 52.4662–4.

(2) *Exemption certificate*—(i) *Overview.* The exemption certificate consists of a statement that is signed under penalties of perjury by a person with authority to bind the purchaser, is in substantially the same form as the model certificate in paragraph (h)(2)(ii) of this section, and contains all of the information necessary to complete such model certificate. A new certificate must be given if any information in the certificate changes. The certificate expires no later than one year from the effective date specified in the certificate. The certificate may be included as part of any business records normally used to document a sale. The IRS may withdraw the right of a purchaser of taxable chemicals to provide a certificate under this section if the purchaser uses the taxable chemicals to which a certificate relates other than as stated in the certificate.

(ii) *Model certificate.*

Exemption Certificate

(To support tax-free sales of taxable chemicals under section 4662(b) of the Internal Revenue Code (Code).)

Name, address, and employer identification number of seller

Name of purchaser (Purchaser) certifies the following under penalties of perjury:

The sale(s) to which this certificate applies are for (mark below):

_____ Sold for use by Purchaser as described in section 4662(b)(2) (qualified fertilizer use), section 4662(b)(5) (qualified fuel use), or section 4662(b)(9) (qualified animal feed use) of the Code

_____ Sold for resale by Purchaser for use, or resale for ultimate use, in a qualified use

The taxable chemical to which this certificate applies will be used (mark below):

_____ Qualified fertilizer use

_____ Qualified fuel use

_____ Qualified animal feed use

Name of taxable chemical(s) to be purchased by Purchaser

This certificate applies to:

1. Percentage of purchaser's purchases _____ between _____ (effective date) and _____ (expiration date) (period not to exceed one year after the effective date) under account or order number(s) _____; or

2. A single purchase invoice or delivery ticket number _____.

If Purchaser sells or uses the taxable chemical to which this certificate relates for a nonqualified sale or use, Purchaser will be treated as the manufacturer of the taxable chemical and will be liable for the tax imposed by section 4661(a) of the Code.

Purchaser will provide a new certificate to the seller if any information in this certificate changes.

Purchaser understands that Purchaser may be liable for the penalty under section 6701 of the Code (relating to aiding and abetting an understatement of tax liability) if this is an erroneous certification.

Purchaser understands that the fraudulent use of this certificate may subject Purchaser and all parties making any fraudulent use of this certificate to a fine or imprisonment, or both, together with the costs of prosecution.

Printed or typed name of person signing

Title of person signing

Employer identification number

Address of Purchaser

Signature and date signed

(i) *Applicability date.* This section applies to sales or uses in calendar quarters beginning on or after [date of publication of final regulations in the **Federal Register**].

■ **Par. 5.** Section 52.4662–3 is added to read as follows:

§ 52.4662–3 Inventory exchanges.

(a) *In general.* Except as otherwise provided in section 4662(c)(2) of the Internal Revenue Code (Code), in any case in which a manufacturer, producer, or importer of a taxable chemical exchanges such chemical as part of an inventory exchange with another person, the exchange is not treated as a sale, and the other person is treated as the manufacturer, producer, or importer of the chemical, if the requirements in paragraph (b) of this section are satisfied. *See* section 4662(c)(2). For purposes of section 4662(c), the term *inventory exchange* means any exchange in which two persons exchange property that is, in the hands of each person, property described in section 1221(a)(1) of the Code. *See* section 4662(c)(2)(C).

(b) *Requirements.* The section 4662(c) exception applies only if, at the time of the exchange, all of the following requirements are satisfied:

(1) Both parties are taxable chemical registrants;

(2) The manufacturer, producer, or importer has an unexpired notification certificate from the person receiving the taxable chemical; and

(3) The manufacturer, producer, or importer has no reason to believe that any information in the notification certificate is false.

(c) *Notification certificate*—(1) *Overview.* The certificate to be provided by the person receiving the taxable chemical consists of a statement that is signed under penalties of perjury by someone with authority to bind the person receiving the taxable chemical, is in substantially the same form as the model certificate provided in paragraph (c)(2) of this section, and contains all of the information necessary to complete such model certificate. A new certificate must be given if any information in the certificate changes or if the person receiving the taxable chemical informs the manufacturer, producer, or importer that the certificate is no longer accurate. The certificate expires on the earlier of the date the person provides a new certificate or the date the person is notified by the Internal Revenue Service (IRS) that the person's registration has been revoked or suspended.

(2) *Model certificate.*

Notification Certificate of Taxable Chemical Registrant

Name, address, and employer identification number of person receiving certificate

The undersigned taxable chemical registrant (Registrant) hereby certifies under penalties of perjury that Registrant is registered by the Internal Revenue Service (IRS) under activity letter ''G'' with registration number _____, and that Registrant's registration has not been revoked or suspended by the IRS.

Registrant understands that the fraudulent use of this certificate may subject Registrant and all parties making such fraudulent use of this certificate to a fine or imprisonment, or both, together with the costs of prosecution.

Signature and date signed

Printed or typed name of person signing

Title of person signing

Name of Registrant

Employer identification number

Address of Registrant

(3) *Use of letter of registration as notification certificate prohibited.* A copy of the letter of registration issued to a taxable chemical registrant by the IRS is not a notification certificate described in paragraph (c) of this section and cannot be used as a substitute for a notification certificate.

(d) *Applicability date.* This section applies to sales or uses in calendar quarters beginning on or after [date of publication of final regulations in the **Federal Register**].

■ **Par. 6.** Section 52.4662–4 is added to read as follows:

§ 52.4662–4 Credit or refund of tax under section 4662(d).

(a) *Tax-paid chemicals used to make taxable chemicals*—(1) *In general.* Any section 4661 tax paid by the manufacturer, producer, or importer (initial manufacturer) with respect to a tax-paid chemical that is subsequently used by any person (subsequent manufacturer) in the manufacture or production of any other substance that

is a taxable chemical (subsequent taxable chemical) will be allowed as a credit or refund to the subsequent manufacturer in the same manner as if it were an overpayment of the section 4661 tax. *See* section 4662(d)(1) of the Code. The subsequent manufacturer may file a claim for credit or refund (without interest) for the amount of the overpayment, provided the conditions to allowance set forth in paragraph (a)(3) of this section are satisfied. See paragraph (a)(4) of this section for the supporting information that a subsequent manufacturer must include with a claim for credit or refund. The subsequent manufacturer's claim for credit or refund of the overpayment cannot exceed the amount of section 4661 tax imposed on the subsequent taxable chemical, or that would have been imposed but for the application of section 4662(b) or (e) of the Code. *See* section 4662(d)(1).

(2) *Allocation required in certain situations.* If a subsequent manufacturer uses a tax-paid chemical to manufacture or produce multiple subsequent taxable chemicals, a subsequent taxable chemical and another substance, or one or more subsequent taxable chemicals and one or more other substances, the subsequent manufacturer must allocate the overpayment of the section 4661 tax paid on the tax-paid chemical (first tax) among all subsequent taxable chemicals and other substances manufactured or produced with the tax-paid chemical and apply the allocation to the claim for credit or refund. The subsequent manufacturer must calculate the amount of the first tax to be allocated to each subsequent taxable chemical and other substance by multiplying the amount of the first tax by a fraction, the numerator of which is the weight (in tons) of the portion of the tax-paid chemical the subsequent manufacturer used to manufacture or produce the subsequent taxable chemical or other substance, and the denominator of which is the total weight (in tons) of the tax-paid chemical for which the subsequent manufacturer has a certificate described in paragraph (e) of this section. The subsequent manufacturer's claim for credit or refund of an overpayment cannot exceed the amount of section 4661 tax imposed on the subsequent taxable chemical to which the claim relates, or that would have been imposed but for the application of section 4662(b) or (e) of the Code. See paragraph (a)(4) of this section for the supporting information regarding the allocation that a subsequent manufacturer must include with a claim for credit or refund. See paragraph (a)(5) of this section for examples that illustrate the allocation rule.

(3) *Conditions to allowance of a claim for credit or refund.* A claim for credit or refund of section 4661 tax is allowed under section 4662(d)(1) and this paragraph (a) only if:

(i) The first tax was paid to the Internal Revenue Service (IRS) and not credited or refunded;

(ii) After payment of the first tax, the subsequent manufacturer used the tax-paid chemical to manufacture or produce a subsequent taxable chemical, multiple subsequent taxable chemicals, a subsequent taxable chemical and another substance, or one or more subsequent taxable chemicals and one or more other substances;

(iii) The subsequent manufacturer sold or used the subsequent taxable chemical for which a credit or refund is sought and section 4661 tax was imposed (or would have been imposed but for section 4662(b) or (e)) on such sale or use;

(iv) The subsequent manufacturer has filed a timely claim for credit or refund that contains the supporting information required under paragraph (a)(4) of this section; and

(v) The subsequent manufacturer has a certificate, in the form prescribed in paragraph (e) of this section, from the initial manufacturer.

(4) *Supporting information required.* A subsequent manufacturer's claim for credit or refund with respect to the subsequent manufacturer's use of a tax-paid chemical to manufacture or produce a subsequent taxable chemical, multiple subsequent taxable chemicals, a subsequent taxable chemical and another substance, or one or more subsequent taxable chemicals and one or more other substances, must include the following information:

(i) The name of the tax-paid chemical, the total number of tons of the tax-paid chemical purchased from the initial manufacturer, producer, or importer, and the total number of tons of the tax-paid chemical used to manufacture or produce each subsequent taxable chemical or other substance during the period covered by the claim;

(ii) The name of each subsequent taxable chemical or other substance and the total number of tons of each subsequent taxable chemical or other substance so manufactured or produced during the period covered by the claim;

(iii) The amount of section 4661 tax paid with respect to the tax-paid chemical and the amount of section 4661 tax imposed (or that would have been imposed but for section 4662(b) or (e)) on the sale or use of each subsequent taxable chemical manufactured or produced with the tax-paid chemical;

(iv) If allocation is required, the amount of the first tax allocated to each subsequent taxable chemical to which the claim relates, and the allocation calculation; and

(v) The certificate described in paragraph (e) of this section, or a copy of such certificate.

(5) *Examples.* The following examples illustrate the allocation rule in paragraph (a)(2) of this section.

(i) *Example 1*—(A) *Facts.* X, a domestic manufacturer, sells 5 tons of Taxable Chemical 1 to Y, a domestic corporation. Section 4661 tax is imposed on X's sale of Taxable Chemical 1 at a rate of $8.90 per ton. X pays the section 4661 tax in the amount of $44.50. Y uses 3 tons of Taxable Chemical 1 to produce 4 tons of Taxable Chemical 2. Y uses 2 tons of Taxable Chemical 1 to produce 3 tons of Taxable Chemical 3. Y then sells the 4 tons of Taxable Chemical 2 and 3 tons of Taxable Chemical 3, to Z, a domestic corporation. Section 4661 tax is imposed on Y's sale of Taxable Chemical 2 at a rate of $9.74 per ton, for a tax of $38.96. Section 4661 tax is imposed on Y's sale of Taxable Chemical 3 at a rate of $5.40 per ton, for a tax of $16.20. The total amount of section 4661 tax imposed on Y's sales of Taxable Chemical 2 and Taxable Chemical 3 is $55.16. Y files a claim for refund of the section 4661 tax X paid with respect to Taxable Chemical 1 (first tax).

(B) *Analysis.* Y must allocate the first tax between Taxable Chemical 2 and Taxable Chemical 3 as follows: 3/5 ($26.70) to Taxable Chemical 2, and 2/5 ($17.80) to Taxable Chemical 3. The section 4661 tax imposed on Y's sale of Taxable Chemical 2 to Z ($38.96), exceeds the amount of the first tax allocated to Taxable Chemical 2 ($26.70). Therefore, Y's claim for refund with respect to Taxable Chemical 2 is limited to $26.70, the amount of the first tax allocated to Taxable Chemical 2. The section 4661 tax imposed on Y's sale of Taxable Chemical 3 to Z ($16.20), is less than the amount of the first tax allocated to Taxable Chemical 3 ($17.80). Therefore, Y's claim for refund with respect to Taxable Chemical 3 is limited to $16.20, the amount of section 4661 tax imposed on Taxable Chemical 3. Y's total claim for refund is limited to $42.90 ($26.70 + $16.20) due to the required allocation.

(ii) *Example 2*—(A) *Facts.* X, a domestic manufacturer, sells 3 tons of Taxable Chemical 1 to Y, a domestic corporation. Section 4661 tax is imposed on X's sale of Taxable

Chemical 1 at a rate of $9.74 per ton. X pays the tax in the amount of $29.22. Y uses 2 tons of Taxable Chemical 1 to produce 3 tons of Taxable Chemical 2. Y uses 1 ton of Taxable Chemical 1 to produce 2 tons of another substance. Y then sells 3 tons of Taxable Chemical 2 to Z, a domestic corporation. Tax is imposed on Y's sale of Taxable Chemical 2 at a rate of $5.40 per ton, for a tax of $16.20. Y files a claim for refund of the first tax paid with respect to Taxable Chemical 1 (first tax).

(B) *Analysis.* Y must allocate the first tax between Taxable Chemical 2 and the other substance as follows: ⅔ ($19.48) to Taxable Chemical 2, and ⅓ ($9.74) to the other substance. Y may claim a refund of the first tax in the amount of $16.20 (the full amount of tax imposed on Y's sale of Taxable Chemical 2 to Z), because the tax imposed on Taxable Chemical 2 does not exceed the amount of the first tax that was allocated to Taxable Chemical 2.

(b) *Use as a fertilizer*—(1) *In general.* Any section 4661 tax paid that exceeds the amount of section 4661 tax determined with regard to section 4662(b)(2) with respect to nitric acid, sulfuric acid, ammonia, or methane used to produce ammonia (each, a fertilizer chemical) that any person uses as a qualified fertilizer substance will be allowed as a credit or refund (without interest) to the person using the fertilizer chemical as a qualified fertilizer substance in the same manner as if it were an overpayment of section 4661 tax. *See* section 4662(d)(2). Such person may file a claim for credit or refund of the amount of the overpayment, provided the conditions to allowance set forth in paragraph (b)(2) of this section are satisfied. See paragraph (b)(3) of this section for the supporting information that must be included with a claim for credit or refund pursuant to section 4662(d)(2).

(2) *Conditions to allowance of a claim for credit or refund.* A claim for credit or refund of section 4661 tax with respect to a tax-paid fertilizer chemical that is used as a qualified fertilizer substance is allowed under section 4662(d)(2) and this section only if:

(i) A section 4661 tax with respect to the fertilizer chemical was paid to the IRS and not credited or refunded;

(ii) After payment of the section 4661 tax, a person used the fertilizer chemical as a qualified fertilizer substance;

(iii) The person using the fertilizer chemical as a qualified fertilizer substance has filed a timely claim for credit or refund that includes the information required under paragraph (b)(3) of this section; and

(iv) The person using the fertilizer chemical as a qualified fertilizer substance has a certificate, in the form prescribed in paragraph (e) of this section, from the person that paid the section 4661 tax.

(3) *Supporting information required.* Each claim for credit or refund with respect to a tax-paid fertilizer chemical used as a qualified fertilizer substance must include the following information:

(i) The name of the tax-paid fertilizer chemical to which the claim relates and the total number of tons of the tax-paid fertilizer chemical used as a qualified fertilizer substance during the period covered by the claim;

(ii) The manner in which the claimant used the qualified fertilizer substance;

(iii) The amount of section 4661 tax paid with respect to the tax-paid fertilizer chemical; and

(iv) The certificate described in paragraph (e) of this section, or a copy of such certificate, that relates to the tax-paid fertilizer chemical for which the claim is being made.

(c) *Use as qualified fuel*—(1) *In general.* Any section 4661 tax paid that exceeds the amount of section 4661 tax determined with regard to section 4662(b)(5) with respect to acetylene, benzene, butylene, butadiene, ethylene, naphthalene, propylene, toluene, or xylene (collectively, fuel chemicals, or individually, a fuel chemical) that any person uses as a qualified fuel substance will be allowed as a credit or refund (without interest) to the person using the fuel chemical as a qualified fuel substance in the same manner as if it were an overpayment of section 4661 tax. *See* section 4662(d)(3). Such person may file a claim for credit or refund of the amount of the overpayment, provided the conditions to allowance set forth in paragraph (c)(2) of this section are satisfied. See paragraph (c)(3) of this section for the supporting information that must be included in a claim for credit or refund pursuant to section 4662(d)(3).

(2) *Conditions to allowance of a claim for credit or refund.* A claim for credit or refund of section 4661 tax with respect to a tax-paid fuel chemical that is used as a qualified fuel substance is allowed under section 4662(d)(3) and this section only if:

(i) A section 4661 tax with respect to the fuel chemical was paid to the IRS and not credited or refunded;

(ii) After payment of the section 4661 tax, a person used the fuel chemical as a qualified fuel substance;

(iii) The person using the fuel chemical as a qualified fuel substance has filed a timely claim for credit or refund that includes the supporting information required under paragraph (c)(3) of this section; and

(iv) The person using the fuel chemical as a qualified fuel substance has a certificate, in the form prescribed in paragraph (e) of this section, from the person that paid the section 4661 tax.

(3) *Supporting information required.* Each claim for credit or refund with respect to a tax-paid fuel chemical used as a qualified fuel substance must include the following information:

(i) The name of the fuel chemical to which the claim relates and the total number of tons of the tax-paid fuel chemical used as a qualified fuel substance during the period covered by the claim;

(ii) The manner in which the claimant used the qualified fuel substance;

(iii) The amount of section 4661 tax paid with respect to the fuel chemical; and

(iv) The certificate described in paragraph (e) of this section, or a copy of such certificate, that relates to the tax-paid fuel chemical for which the claim is being made.

(d) *Use in the production of animal feed*—(1) *In general.* Any section 4661 tax paid that exceeds the amount of tax determined with regard to section 4662(b)(9) with respect to nitric acid, sulfuric acid, ammonia, or methane used to produce ammonia (each, an animal feed chemical) that any person uses as a qualified animal feed substance will be allowed as a credit or refund (without interest) to the person using the animal feed chemical as a qualified animal feed substance in the same manner as if it were an overpayment of section 4661 tax. *See* section 4662(d)(4). Such person may file a claim for credit or refund of the amount of the overpayment, provided the conditions to allowance set forth in paragraph (d)(2) of this section are satisfied. See paragraph (d)(3) of this section for the supporting information that must be included in a claim for credit or refund pursuant to section 4662(d)(4).

(2) *Conditions to allowance of a claim for credit or refund.* A claim for credit or refund of section 4661 tax with respect to a tax-paid animal feed chemical that is used as a qualified animal feed substance is allowed under section 4662(d)(4) and this section only if:

(i) A section 4661 tax with respect to the animal feed chemical was paid to the IRS and not credited or refunded;

(ii) After payment of the section 4661 tax, a person used the animal feed chemical as a qualified animal feed substance;

(iii) The person using the animal feed chemical as a qualified animal feed substance has filed a timely claim for credit or refund that includes the supporting information required under paragraph (d)(3) of this section; and

(iv) The person using the animal feed chemical as a qualified animal feed substance has a certificate, in the form prescribed in paragraph (e) of this section, from the person that paid the section 4661 tax.

(3) *Supporting information required.* Each claim for credit or refund with respect to a tax-paid animal feed chemical used as a qualified animal feed substance must include the following information:

(i) The name of the animal feed chemical to which the claim relates and the total number of tons of the tax-paid animal feed chemical used as a qualified animal feed substance during the period covered by the claim;

(ii) The manner in which the claimant used the qualified animal feed substance;

(iii) The amount of section 4661 tax paid with respect to the animal feed chemical; and

(iv) A certificate described in paragraph (e) of this section, or a copy of such certificate, that relates to the tax-paid animal feed chemical for which the claim is being made.

(e) *Certificate*—(1) *Overview.* The certificate to be provided with any claim for credit or refund under paragraphs (a) through (d) of this section consists of a statement that is signed under penalties of perjury by a person with authority to bind the person that paid the section 4661 tax, is in substantially the same form as the model certificate provided in paragraph (e)(2) of this section, and contains all of the information necessary to complete the model certificate.

(2) *Model certificate.*

Certificate To Support a Claim for Credit or Refund

(To support claims for credit or refund under section 4662(d) of the Internal Revenue Code (Code).)

_____

_____

_____

Name, address, and employer identification number of person that paid the tax imposed by section 4661 of the Code (section 4661 tax)

The undersigned taxpayer hereby certifies the following under penalties of perjury:

The undersigned taxpayer reported and paid the section 4661 tax on the following taxable chemicals (include lot numbers (if applicable), quantities (in tons), and dates of sale or use):

_____

_____

_____

Amount of section 4661 tax the undersigned taxpayer paid with respect to the taxable chemicals listed above:

_____

Tax quarter(s) during which tax payment(s) was made: _____

The undersigned taxpayer has not received a credit or a refund, and will not claim a credit or a refund, with regard to the tax paid on the taxable chemical(s) to which this certificate relates.

The undersigned taxpayer understands that it may be liable for the penalty under section 6701 of the Code (relating to aiding and abetting an understatement of tax liability) if this is an erroneous certification.

The undersigned taxpayer understands that the fraudulent use of this certificate may subject the undersigned taxpayer and all parties making any fraudulent use of this certificate to a fine or imprisonment, or both, together with the costs of prosecution.

_____

Signature and date signed

_____

Printed or typed name of person signing

_____

Title of person signing

(f) *Applicability date.* This section applies to sales or uses in calendar quarters beginning on or after the [date of publication of final regulations in the **Federal Register**].

■ **Par. 7.** Section 52.4662–5 is added to read as follows:

§ 52.4662–5 Exports.

(a) *Overview.* Section 4662(e) of the Internal Revenue Code (Code) provides rules regarding taxable chemicals that are exported. Paragraph (b) of this section provides the circumstances under which a manufacturer or producer may make a tax-free sale for export. Paragraph (c) of this section provides the circumstances under which a credit or refund (without interest) of the section 4661 tax is allowed to the person that paid the section 4661 tax. Paragraph (d) of this section provides the circumstances under which a credit or refund (without interest) of the section 4661 tax is allowed to the exporter.

(b) *Tax-free sales for export*—(1) *In general.* A manufacturer or producer of a taxable chemical may sell a taxable chemical tax free under section 4662(e)(1) only if the person that purchases the taxable chemical from the manufacturer or producer (first purchaser) intends to export the taxable chemical or resell it to a second purchaser that intends to export the taxable chemical. A manufacturer or producer may not sell a taxable chemical tax free to a first purchaser for resale to a second purchaser if the second purchaser does not intend to export the taxable chemical itself but instead plans to sell it to a third purchaser that will resell the taxable chemical or export it. See paragraph (b)(5)(i) of this section for the proof required when the manufacturer or producer is the exporter. See paragraph (b)(5)(ii) of this section for the proof required when the manufacturer or producer is not the exporter.

(2) *Exported taxable chemical returned to the United States.* If a taxable chemical is sold tax free by the manufacturer or producer pursuant to section 4662(e)(1) and paragraph (b) of this section and the taxable chemical is subsequently returned to the United States, the importer of the taxable chemical is liable for the section 4661 tax when the importer sells or uses the taxable chemical.

(3) *Sale or resale to a purchaser located outside the United States.* To make a tax-free sale of a taxable chemical for export to a first purchaser that is located outside the United States, the manufacturer or producer must obtain from the first purchaser, at the earlier of the time title to the taxable chemical passes to the first purchaser or the time of shipment, either:

(i) A written order or contract of sale that states the manufacturer or producer will ship the taxable chemical to a location outside the United States; or

(ii) Where shipment is to be made to a location within the United States, a statement from the first purchaser showing:

(A) That the first purchaser is purchasing the taxable chemical to fill existing or future orders for shipment to a location outside the United States, or for resale to a second purchaser that is engaged in the business of exporting and that will export the taxable chemical; and

(B) That such taxable chemical will be shipped to a location outside the United States prior to any resale except for export.

(4) *Cessation of exemption.* The exemption provided in section 4662(e)(1) and paragraph (b) of this section will cease to apply on the first day following the close of the 6-month period that begins on the date the manufacturer or producer sold the taxable chemical to the first purchaser, or the date the manufacturer or producer shipped the taxable chemical

to the first purchaser, whichever is earlier, unless the manufacturer or producer receives proof of export, in the form prescribed by paragraph (b)(5) of this section, within such 6-month period. If, on the first day following the close of such 6-month period, the manufacturer or producer has not received proof of export, in the form prescribed by paragraph (b)(5) of this section, the manufacturer or producer is liable for the tax and tax attaches at that time.

(5) *Proof of export*—(i) *Proof required when the manufacturer or producer is the exporter.* The following constitutes proof of export when the manufacturer or producer is the exporter:

(A) A copy of the export bill of lading issued by the delivering carrier;

(B) A certificate by the agent or representative of the export carrier showing actual exportation of the taxable chemical;

(C) A certificate of landing signed by a customs officer of the foreign country to which the taxable chemical is exported;

(D) Where the foreign country has no customs administration, a statement of the foreign consignee showing receipt of the taxable chemical; or

(E) Where a department or agency of the United States government is unable to furnish any one of the foregoing types of proof of exportation, a statement or certification on department or agency letterhead, executed by an authorized person, that the taxable chemicals have been exported.

(ii) *Statement of export required when manufacturer or producer is not the exporter*—(A) *In general.* If the manufacturer or producer of a taxable chemical is not the exporter of the taxable chemical, the manufacturer or producer must have in its possession a statement from the first purchaser stating that the taxable chemical was, in fact, exported by the first purchaser, or was resold to a second purchaser that exported the taxable chemical. The manufacturer or producer must receive such statement of export no later than the close of the 6-month period that begins on the earlier of the date the manufacturer or producer sold the taxable chemical to the first purchaser, or the date the manufacturer or producer shipped the taxable chemical to the first purchaser. The statement of export consists of a statement that is signed under penalties of perjury by a person with authority to bind the first purchaser, is in substantially the same form as the model statement of export in paragraph (b)(5)(ii)(B) of this section, and contains all the information necessary to complete the model statement. The statement of export must be included as part of the manufacturer or producer's business records.

(B) *Model statement of export.*

Statement of Export

(To support tax-free sales of taxable chemicals under section 4662(e)(1)(B) of the Internal Revenue Code (Code).)

_____

Name of Purchaser (Purchaser) certifies the following under penalties of perjury:

Name of taxable chemical(s) purchased by Purchaser:

_____

_____

_____

Purchaser purchased the taxable chemical(s) specified above tax free on _____ (purchase date). The taxable chemicals were thereafter exported.

Purchaser has in its possession proof of export with respect to the taxable chemicals identified in this statement. The proof of export is:

_____

_____

Purchaser will retain the business records needed to document the export of the taxable chemical(s) to which this statement applies and will make such records available to the Internal Revenue Service.

Purchaser has not previously executed a statement with respect to the taxable chemical(s) identified in this certificate.

Purchaser understands that Purchaser may be liable for the penalty under section 6701 of the Code (relating to aiding and abetting an understatement of tax liability) if this is an erroneous certification.

Purchaser understands that the fraudulent use of this statement may subject Purchaser and all parties making any fraudulent use of this certificate to a fine or imprisonment, or both, together with the costs of prosecution.

_____

Printed or typed name of person signing

_____

Title of person signing

_____

Employer identification number

_____

Address of Purchaser

_____

Signature and date signed

(c) *Credit or refund*—(1) *In general.* The person that paid the section 4661 tax with respect to a taxable chemical is allowed a credit or refund (without interest) if:

(i) Such chemical was exported by any person; or

(ii) Such chemical was used as material in the manufacture or production of a substance that was exported by any person and, at the time of export, was a taxable substance (as defined in section 4672(a) of the Code and § 52.4672–1(b)(8)). *See* section 4662(e)(2)(A).

(2) *Conditions to allowance of claim for credit or refund.* A claim for credit or refund of section 4661 tax with respect to a tax-paid chemical that is exported (or with respect to a tax-paid chemical that is used as material in the manufacture or production of a substance that is a taxable substance at the time of export) is allowed under section 4662(e)(2) and paragraph (c) of this section only if the person that paid the section 4661 tax establishes that:

(i) The person has repaid or agreed to repay the amount of the section 4661 tax to the person that exported the tax-paid chemical (or the taxable substance manufactured or produced with the tax-paid chemical); or

(ii) The person has obtained the written consent of the exporter to the allowance of the credit or the making of the refund; and

(iii) The person provides the supporting information described in paragraph (c)(3) of this section.

(3) *Supporting information required.* Each claim for credit or refund with respect to a tax-paid chemical that is exported (or with respect to a tax-paid chemical that is used as material in the manufacture or production of a substance that is a taxable substance at the time of export) must include the following information:

(i) The name of the tax-paid chemical to which the claim relates and the total number of tons of the tax-paid chemical exported during the period covered by the claim (in the case of a tax-paid chemical used to manufacture or produce a taxable substance, the claim must also include the name of each taxable substance and the number of tons of each taxable substance exported during the period covered by the claim);

(ii) The amount of section 4661 tax paid with respect to the tax-paid chemical (in the case of a taxable substance, the amount of section 4661 tax paid with respect to each tax-paid chemical used in the manufacture or production of the substance); and

(iii) Proof of export of the taxable chemical (or the taxable substance) in the form prescribed by paragraph (b)(5) of this section.

(d) *Credit or refund directly to exporter*—(1) *In general.* The exporter is allowed a credit or refund (without interest), provided the conditions to allowance in paragraph (d)(2) of this

section are satisfied. *See* section 4662(e)(3).

(2) *Conditions to allowance.* Any section 4661 tax paid on a taxable chemical (or on any taxable chemical used as material in the manufacture or production of a taxable substance) may be credited or refunded (without interest) to the exporter pursuant to section 4662(e)(3) and paragraph (d) of this section only if:

(i) The person that paid the section 4661 tax waives the right to claim a credit or refund of the section 4661 tax; and

(ii) The exporter provides the supporting information described in paragraph (d)(3) of this section.

(3) *Supporting information required.* Each claim for credit or refund by the exporter must include the following information:

(i) The name of the tax-paid chemical to which the claim relates and the total number of tons of the tax-paid chemical exported during the period covered by the claim (or in the case of a taxable substance, the name of the taxable substance to which the claim relates, the name of each tax-paid chemical used as material in the manufacture or production of the taxable substance, and the total number of tons of each tax-paid chemical used as material in the manufacture or production of the taxable substance that was exported during the period covered by the claim);

(ii) Proof of export of the tax-paid chemical (or the taxable substance) in the form prescribed by paragraph (b)(5) of this section; and

(iii) A statement, signed under penalties of perjury by the person that paid the section 4661 tax, providing:

(A) That the person that paid the tax waives the right to claim a credit or refund of the section 4661 tax;

(B) The amount of section 4661 tax the person paid on the sale of the taxable chemical (or on the sale or use of each taxable chemical used to manufacture or produce the taxable substance); and

(C) The date the person paid the section 4661 tax.

(e) *Applicability date.* This section applies to sales or uses in calendar quarters beginning on or after [date of publication of final regulations in the **Federal Register**].

■ **Par. 8.** Section 52.4671–1 is added to read as follows:

§ 52.4671–1 Imposition of tax.

(a) *In general.* Section 4671(a) of the Internal Revenue Code (Code) imposes an excise tax on any taxable substance sold or used by the importer of the taxable substance.

(b) *Person liable for tax.* The importer of a taxable substance is the person liable for the section 4671 tax.

(c) *Attachment of tax.* The section 4671 tax attaches at the time the importer first sells or uses the taxable substance.

(d) *Procedural rules.* Part 40 of this chapter provides rules related to filing excise tax returns, making semimonthly deposits of excise tax, making payments of excise tax, and other procedural rules. *See* §§ 52.0–1 and 40.0–1(a) of this chapter. Each business unit that has, or is required to have, a separate employer identification number is treated as a separate person for purposes of filing excise tax returns, making semimonthly deposits of excise tax, and making payments of excise tax. *See* § 40.0–1(d) of this chapter.

(e) *Amount of tax*—(1) *In general.* Except as provided in paragraph (e)(2) of this section, the amount of section 4671 tax with respect to any taxable substance is the amount of section 4661 tax that would have been imposed on the taxable chemicals used as materials in the manufacture or production of the taxable substance if the taxable chemicals had been sold in the United States for use in the manufacture or production of the taxable substance. *See* section 4671(b)(1).

(2) *Special rules.* If the importer does not furnish sufficient information to the Secretary of the Treasury or her delegate (Secretary) to determine the amount of section 4671 tax imposed on any taxable substance, the amount of section 4671 tax is 10 percent of the appraised value of the taxable substance at the time the substance was entered into the United States for consumption, use, or warehousing. *See* section 4671(b)(2). Alternatively, the Secretary may prescribe a tax rate for any taxable substance in lieu of the amount prescribed in section 4671(b)(2). The tax rate prescribed by the Secretary equals the amount of section 4671 tax that would have been imposed if the taxable substance were produced using the predominant method of production of such substance using a stoichiometric material consumption equation that assumes a 100-percent yield. *See* section 4671(b)(3). Importers of taxable substances are not required to use the rate or rates prescribed by the Secretary and may instead calculate the amount of section 4671 tax pursuant to section 4671(b)(1) and § 52.4671–1(e)(1).

(3) *Example.* An importer sells a substance that is a taxable substance listed in section 4672(a)(3). The taxable chemical, acetylene, constitutes, by weight, 19 percent of the materials used to produce the taxable substance. Section 4671 tax attaches at the time of the importer's sale of the taxable substance. The Secretary has prescribed a tax rate for the taxable substance pursuant to section 4671(b)(3). The importer may calculate the amount of section 4671 tax pursuant to section 4671(b)(1), or use the rate prescribed by the Secretary to calculate the amount of section 4671 tax imposed on the importer's sale of the taxable substance.

(f) *Exemption for substances taxed under sections 4611 and 4661.* No section 4671 tax is imposed on the importer's sale or use of any taxable substance if tax is imposed on such sale or use under section 4611 or 4661 of the Code. *See* section 4671(c).

(g) *Applicability date.* This section applies to calendar quarters beginning on or after [date of publication of final regulations in the **Federal Register**].

■ **Par. 9.** Section 52.4671–2 is added to read as follows:

§ 52.4671–2 Certain fertilizer, fuel, and animal feed uses.

(a) *In general.* Section 4671(d) of the Internal Revenue Code (Code) provides that rules similar to section 4662(b)(2) of the Code (pertaining to fertilizer), section 4662(b)(5) (pertaining to motor fuel), and section 4662(b)(9) (pertaining to animal feed) apply with respect to taxable substances used or sold for use as described in section 4662(b)(2), (5), and (9).

(b) *Tax-free sales*—(1) *In general.* No section 4671 tax is imposed on a taxable substance used or sold for use as described in section 4662(b)(2), (5), or (9), if all taxable chemicals used as materials in the manufacture or production of such substance would have been exempt under section 4662(b)(2), (5), or (9) if such taxable chemicals had been sold in the United States for use in the manufacture or production of the taxable substance. To make a tax-free sale of a taxable substance pursuant to section 4671(d)(1), the importer (or, in the case of resales, the reseller) of the taxable substance must obtain an unexpired exemption certificate from the purchaser, in the form prescribed in paragraph (b)(3) of this section, prior to or at the time of sale, and the importer or reseller must have no reason to believe that any information in the certificate regarding the use of the taxable substance is false. If the importer or reseller does not obtain an unexpired exemption certificate by the time of the sale, or if the importer or reseller has reason to believe that any information in the certificate regarding the use of the substance is false, the importer or reseller is liable for the full

amount of the section 4671 tax. However, if the purchaser subsequently uses the taxable substance as described in section 4662(b)(2), (5), or (9), the purchaser may file a claim for credit or refund pursuant to section 4671(d)(2) and paragraph (c) of this section.

(2) *Tax-free sales not available in certain situations.* The provisions of paragraph (b)(1) of this section apply only if all taxable chemicals used as materials in the manufacture or production of a taxable substance would have been exempt under section 4662(b)(2), (5), or (9) if such taxable chemicals had been sold in the United States for use in the manufacture or production of the taxable substance. Section 4671 tax is imposed on a taxable substance used or sold for use if the taxable chemicals used as materials in the manufacture or production of such taxable substance consist of one or more taxable chemicals that would have been exempt under section 4662(b)(2), (5), or (9), and one or more taxable chemicals that would not have been exempt under section 4662(b)(2), (5), or (9). If the purchaser subsequently uses the taxable substance as described in section 4662(b)(2), (5), or (9), the purchaser may file a claim for credit or refund of the section 4671 tax paid on the taxable chemicals that would have been exempt under section 4662(b)(2), (5), or (9) pursuant to section 4671(d)(2) and paragraph (c) of this section and were used as materials in the manufacture or production of the taxable substance.

(3) *Exemption certificate*—(i) *Overview.* The exemption certificate consists of a statement that is signed under penalties of perjury by a person with authority to bind the purchaser, is in substantially the same form as the model certificate in paragraph (b)(3)(ii) of this section, and contains all of the information necessary to complete such model certificate. A new certificate must be given if any information in the certificate changes. The certificate expires no later than one year from the effective date specified in the certificate. The certificate may be included as part of any business records normally used to document a sale. The Internal Revenue Service (IRS) may withdraw the right of a purchaser of a taxable substance to provide a certificate under this section if the purchaser uses the taxable substance to which a certificate relates other than as stated in the certificate.

(ii) *Model certificate.*

Exemption Certificate

(To support tax-free sales of taxable substances under section 4671(d)(1) of the Internal Revenue Code (Code).)

_____

_____

_____

Name, address, and employer identification number of seller

_____

Name of Purchaser (Purchaser) certifies the following under penalties of perjury:

The sale(s) to which this certificate applies are for (mark below):

_____ Sold for use by Purchaser as described in section 4662(b)(2) (qualified fertilizer use), section 4662(b)(5) (qualified fuel use), or section 4662(b)(9) (qualified animal feed use) of the Code

_____ Sold for resale by Purchaser for use, or resale for ultimate use, in a qualified use

The taxable substance(s) to which this certificate applies will be used (mark below):

_____ Qualified fertilizer use

_____ Qualified fuel use

_____ Qualified animal feed use

_____

_____

Name of taxable substance(s) to be purchased by Purchaser

This certificate applies to:

1. Percentage of Purchaser's purchases _____ between _____ (effective date) and _____ (expiration date) (period not to exceed one year after the effective date) under account or order number(s) _____; or

2. A single purchase invoice or delivery ticket number _____.

If Purchaser sells or uses the taxable substance to which this certificate relates for a nonqualified sale or use, Purchaser will be treated as the importer of the taxable substance and will be liable for the tax imposed by section 4671.

Purchaser will provide a new certificate to the seller if any information in this certificate changes.

Purchaser understands that Purchaser may be liable for the penalty under section 6701 of the Code (relating to aiding and abetting an understatement of tax liability) if this is an erroneous certification.

Purchaser understands that the fraudulent use of this certificate may subject Purchaser and all parties making any fraudulent use of this certificate to a fine or imprisonment, or both, together with the costs of prosecution.

_____

Printed or typed name of person signing

_____

Title of person signing

_____

Employer identification number

_____

Address of Purchaser

_____

Signature and date signed

(c) *Credits and refunds*—(1) *In general.* If any section 4671 tax was paid with respect to a taxable substance used or sold for use as described in section 4662(b)(2), (5), or (9), the portion of the tax attributable to any taxable chemical used as material in the manufacture or production of such substance that would have been exempt under section 4662(b)(2), (5), or (9) if the taxable chemical had been sold in the United States will be allowed as a credit or refund (without interest) to the person using the substance in the same manner as if it were an overpayment of section 4671 tax. *See* sections 4671(d)(2) and 4662(d). Such person may file a claim for credit or refund of the amount of the overpayment, provided the conditions to allowance set forth in paragraph (c)(2) of this section are satisfied. See paragraph (c)(3) of this section for the supporting information that must be included in a claim for credit or refund pursuant to section 4671(d)(2).

(2) *Conditions to allowance of a claim for credit or refund.* A claim for credit or refund of section 4671 tax is allowed under section 4671(d)(2) and this section only if:

(i) A section 4671 tax was paid to the Internal Revenue Service and not credited or refunded;

(ii) After the imposition of section 4671 tax, a person used the taxable substance as described in section 4662(b)(2), (5), or (9);

(iii) The person using the taxable substance has filed a timely claim for credit or refund that includes the information required under paragraph (c)(3) of this section; and

(iv) The person using the taxable substance has a certificate, in the form prescribed in paragraph (c)(4) of this section, from the person that paid the section 4671 tax. The claimant must have a separate certificate for each taxable substance to which the claim relates.

(3) *Supporting information required.* Each claim for credit or refund must include the following information:

(i) The name of the taxable substance to which the claim relates and the total number of tons of the taxable substance used as described in section 4662(b)(2), (5), or (9) during the period covered by the claim;

(ii) The name of any taxable chemicals used as material in the manufacture or production of the taxable substance that would have been exempt under section 4662(b)(2), (5), or (9) if the taxable chemicals had been sold in the United States;

(iii) The type of qualified use (fertilizer, fuel, or animal feed);

(iv) The total amount of section 4671 tax paid on the taxable substance under section 4671(a);

(v) If the amount of section 4671 tax was calculated pursuant to section 4671(b)(1) and § 52.4671–1(e)(1), the rate of tax and conversion factors for any taxable chemicals used as material in the manufacture or production of the taxable substance that would have been exempt under section 4662(b)(2), (5), or (9) if the taxable chemicals had been sold in the United States; and

(vi) A certificate described in paragraph (c)(4) of this section, or a copy of such certificate, that relates to the taxable substance for which the claim is being made.

(4) *Certificate*—(i) *Overview.* The certificate to be provided with regard to claims for credit or refund under this section consists of a statement that is signed under penalties of perjury by a person with authority to bind the person that paid the section 4671 tax, is in substantially the same form as the model certificate provided in paragraph (c)(4)(ii) of this section, and contains all of the information necessary to complete the model certificate.

(ii) *Model certificate.*

Certificate To Support a Claim for Credit or Refund

(To support claims for credit or refund under section 4671(d)(2) of the Internal Revenue Code (Code).)

_____

_____

_____

Name, address, and employer identification number of person that paid the tax imposed by section 4671 of the Code (section 4671 tax)

The undersigned taxpayer hereby certifies the following under penalties of perjury:

The undersigned taxpayer reported and paid the section 4671 tax on the following taxable substance (include lot numbers (if applicable) and the date(s) of sale or use):

_____

Number of tons of the taxable substance on which tax was paid:

_____

Name of any taxable chemicals used as material in the manufacture or production of the taxable substance:

_____

_____

_____

Total amount of section 4671 tax the undersigned taxpayer paid with respect to the taxable substance listed above:

_____

Rate of tax for the taxable substance listed above (complete only if the amount of tax was calculated pursuant to section 4671(b)(1)):

_____

Conversion factor for each taxable chemical listed above (complete only if the amount of tax was calculated pursuant to section 4671(b)(1)):

_____

Tax quarter(s) during which tax payment was made:

_____

The undersigned taxpayer has not received a credit or a refund, and will not claim a credit or a refund, with regard to the tax paid on the taxable substance to which this certificate relates.

The undersigned taxpayer understands that it may be liable for the penalty under section 6701 of the Code (relating to aiding and abetting an understatement of tax liability) if this is an erroneous certification.

The undersigned taxpayer understands that the fraudulent use of this certificate may subject the undersigned taxpayer and all parties making any fraudulent use of this certificate to a fine or imprisonment, or both, together with the costs of prosecution.

_____

Signature and date signed

_____

Printed or typed name of person signing

_____

Title of person signing

(d) *Applicability date.* This section applies to calendar quarters beginning on or after [date of publication of final regulations in the **Federal Register**].

■ **Par. 10.** Section 52.4672–1 is added to read as follows:

§ 52.4672–1 Definitions.

(a) *Overview.* This section provides definitions for purposes of sections 4671 and 4672 of the Internal Revenue Code (Code), §§ 52.4671–1 and 52.4671–2, this section, and § 52.4672–2.

(b) *Definitions*—(1) *Conversion factor.* The term *conversion factor* means the ratio of the weight of an individual taxable chemical used in the production of a substance to the total weight of the substance.

(2) *Entry for consumption, use, or warehousing.* The term *entry for consumption, use, or warehousing* has the meaning given such term by § 52.4662–1(c)(2).

(3) *Importer*—(i) *In general.* The term *importer* means the person entering the taxable substance for consumption, use, or warehousing. *See* section 4662(a)(3). If the person entering the taxable substance for consumption, use, or warehousing is merely acting as an agent or a customs broker for another person, then the agent or customs broker is not the importer and the importer is the first person in the United States to sell or use the taxable substance after entry of the taxable substance for consumption, use, or warehousing.

(ii) *Drop ship businesses.* If a drop ship business in the United States purchases or otherwise arranges for a person outside the United States to ship a taxable substance directly to a purchaser in the United States, the drop ship business is the importer of the taxable substance. If a drop ship business outside the United States purchases or otherwise arranges for a person outside the United States to ship a taxable substance directly to a purchaser in the United States, the purchaser in the United States is the importer of the taxable substance. With regard to any sale of a taxable substance, the term *drop ship business* means a person that sells the taxable substance or arranges for purchasers to purchase the taxable substance, and uses a third party to fill orders by shipping the taxable substance directly to the purchaser. The determination of whether a person is a drop ship business is made on a sale-by-sale basis.

(4) *Predominant method of production.* The term *predominant method of production* means the method used to produce the greatest number of tons of a particular substance worldwide, relative to the total number of tons of the substance produced worldwide.

(5) *Sale.* The term *sale* means the transfer of title or substantial incidents of ownership (whether or not delivery to, or payment by, the purchaser has been made) in a taxable substance for a consideration, which may include, but is not limited to, money, services, or property.

(6) *Section 4671 tax.* The term *section 4671 tax* means the excise tax imposed by section 4671(a) of the Code on any taxable substance sold or used by the importer of the taxable substance.

(7) *Taxable chemical.* The term *taxable chemical* has the meaning given such term by section 4662(a)(1) of the Code and section § 52.4662–1(b).

(8) *Taxable substance.* The term *taxable substance* means any substance, which at the time of sale or use by the importer, is listed in section 4672(a)(3) or has been added to the list of taxable substances pursuant to section 4672(a)(2) or (4). The term does not include any substance that the Secretary of the Treasury or her delegate has removed from the list of taxable

substances through the process described in section 4672(a)(2) or (4). A substance that satisfies the weight or value test, but that is not listed in section 4672(a)(3) and has not been added to the list of taxable substances pursuant to section 4672(a)(2) or (4), is not a taxable substance.

(9) *Use.* A taxable substance is used when it is consumed, when it functions as a catalyst, when its chemical composition changes, when it is used in the manufacture or production of another substance (including by mixing or combining the taxable substance with other substances), or when it is put into service in a trade or business for the production of income. The loss or destruction of a taxable substance through spillage, fire, natural degradation, or other casualty is not a use. The mere manufacture or production of a taxable substance is not a use of that taxable substance.

(10) *United States.* The term *United States* has the meaning given such term by section 4612(a)(4) of the Code. *See* sections 4672(b)(2) and 4662(a)(2).

(11) *Weight or value test.* The term *weight or value test* means the test under section 4672(a)(2)(B) for determining whether taxable chemicals constitute more than 20 percent of the weight or more than 20 percent of the value of the materials used to produce a substance, based on the predominant method of production.

(c) *Applicability date.* This section applies to calendar quarters beginning on or after [date of publication of final regulations in the **Federal Register**].

■ **Par. 11.** Section 52.4672–2 is added to read as follows:

§ 52.4672–2 List of taxable substances.

(a) *Overview.* Section 4672(a)(3) of the Internal Revenue Code (Code) provides the initial list of taxable substances. Section 4672(a)(2) and (4) provides mechanisms by which substances may be added to or removed from the list. Therefore, the list of taxable substances is subject to change. The Internal Revenue Service (IRS) will maintain the current list of taxable substances at *https://www.irs.gov/businesses/small-businesses-self-employed/superfund-chemical-excise-taxes.*

(b) *Requests to modify the list of taxable substances*—(1) *In general.* An importer or exporter of any substance, or a person other than an importer or exporter (interested person), may petition to add a substance to or remove a substance from the list of taxable substances. *See* section 4672(a)(2). The procedures governing the exclusive process by which importers, exporters, and interested persons may request modifications to the list of taxable substances are provided in guidance published in the Internal Revenue Bulletin. *See* § 601.601(d) of this chapter.

(2) *Synthetic organic substances.* A synthetic organic substance is eligible for addition to the list of taxable substances through the process described in paragraph (b)(1) of this section unless such substance is a textile fiber (other than a polymer in extruded fiber form), yarn, or staple, or a fabricated product that is molded, formed, woven, or otherwise finished into an end-use product. However, such substance may be added to the list of taxable substances only if it meets the weight or value test.

(3) *Inorganic substances.* An inorganic substance is eligible for addition to the list of taxable substances through the process described in paragraph (b)(1) of this section unless it is a fabricated product that is molded, formed, or otherwise finished into an end-use product. However, such substance may be added to the list of taxable substances only if it meets the weight or value test.

(c) *Applicability date.* This section applies to calendar quarters beginning on or after [date of publication of final regulations in the **Federal Register**].

Douglas W. O'Donnell,

Deputy Commissioner for Services and Enforcement.

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DEPARTMENT OF THE TREASURY

Alcohol and Tobacco Tax and Trade Bureau

27 CFR Part 9

[Docket No. TTB–2023–0004; Notice No. 223]

RIN 1513–AC97

Proposed Establishment of the Contra Costa Viticultural Area and Modification of the San Francisco Bay and Central Coast Viticultural Areas

AGENCY: Alcohol and Tobacco Tax and Trade Bureau, Treasury.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Alcohol and Tobacco Tax and Trade Bureau (TTB) proposes to establish the approximately 167,146-acre ''Contra Costa'' American viticultural area (AVA) in Contra Costa County, California. Only the westernmost portion of the proposed AVA would lie in the established San Francisco Bay and Central Coast AVAs. To avoid this partial overlap, TTB proposes to expand the boundary of the established San Francisco Bay and Central Coast AVAs to entirely encompass the proposed Contra Costa AVA. The proposed expansions would add approximately 109,955 acres to each of the established AVAs. TTB designates viticultural areas to allow vintners to better describe the origin of their wines and to allow consumers to better identify wines they may purchase. TTB invites comments on these proposals.

DATES: TTB must receive your comments on or before May 30, 2023.

ADDRESSES: You may electronically submit comments to TTB on this proposal and view copies of this document, its supporting materials, and any comments TTB receives on the proposal within Docket No. TTB–2023–0004, as posted on *Regulations.gov* (*https://www.regulations.gov*), the Federal e-rulemaking portal. Please see the ''Public Participation'' section of this document below for full details on how to comment on this proposal via *Regulations.gov* or U.S. mail, and for full details on how to obtain copies of this document, its supporting materials, and any comments related to this proposal.

FOR FURTHER INFORMATION CONTACT: Karen A. Thornton, Regulations and Rulings Division, Alcohol and Tobacco Tax and Trade Bureau, 1310 G Street NW, Box 12, Washington, DC 20005; phone 202–453–1039, ext. 175.

SUPPLEMENTARY INFORMATION:

Background on Viticultural Areas

TTB Authority

Section 105(e) of the Federal Alcohol Administration Act (FAA Act), 27 U.S.C. 205(e), authorizes the Secretary of the Treasury to prescribe regulations for the labeling of wine, distilled spirits, and malt beverages. The FAA Act provides that these regulations should, among other things, prohibit consumer deception and the use of misleading statements on labels, and ensure that labels provide the consumer with adequate information as to the identity and quality of the product. The Alcohol and Tobacco Tax and Trade Bureau (TTB) administers the FAA Act pursuant to section 1111(d) of the Homeland Security Act of 2002, codified at 6 U.S.C. 531(d). The Secretary has delegated the functions and duties in the administration and enforcement of these provisions to the TTB Administrator through Treasury Department Order 120–01, dated

December 10, 2013 (superseding Treasury Order 120–01, dated January 24, 2003).

Part 4 of the TTB regulations (27 CFR part 4) authorizes TTB to establish definitive viticultural areas and regulate the use of their names as appellations of origin on wine labels and in wine advertisements. Part 9 of the TTB regulations (27 CFR part 9) sets forth standards for the preparation and submission of petitions for the establishment or modification of American viticultural areas (AVAs) and lists the approved AVAs.

Definition

Section 4.25(e)(1)(i) of the TTB regulations (27 CFR 4.25(e)(1)(i)) defines a viticultural area for American wine as a delimited grape-growing region having distinguishing features, as described in part 9 of the regulations, and a name and a delineated boundary, as established in part 9 of the regulations. These designations allow vintners and consumers to attribute a given quality, reputation, or other characteristic of a wine made from grapes grown in an area to its geographic origin. The establishment of AVAs allows vintners to describe more accurately the origin of their wines to consumers and helps consumers to identify wines they may purchase. Establishment of an AVA is neither an approval nor an endorsement by TTB of the wine produced in that area.

Requirements

Section 4.25(e)(2) of the TTB regulations (27 CFR 4.25(e)(2)) outlines the procedure for proposing an AVA and allows any interested party to petition TTB to establish a grape-growing region as an AVA. Section 9.12 of the TTB regulations (27 CFR 9.12) prescribes standards for petitions to establish or modify AVAs. Petitions to establish an AVA must include the following:

- Evidence that the area within the proposed AVA boundary is nationally or locally known by the AVA name specified in the petition;
- An explanation of the basis for defining the boundary of the proposed AVA;
- A narrative description of the features of the proposed AVA that affect viticulture, such as climate, geology, soils, physical features, and elevation, that make the proposed AVA distinctive and distinguish it from adjacent areas outside the proposed AVA boundary;
- The appropriate United States Geological Survey (USGS) map(s) showing the location of the proposed AVA, with the boundary of the proposed AVA clearly drawn thereon; and
- A detailed narrative description of the proposed AVA boundary based on USGS map markings.

If the petition proposes the establishment of a new AVA entirely within, or overlapping, an existing AVA, the evidence submitted must include information that identifies the attributes that are consistent with the existing AVA and explain how the proposed AVA is sufficiently distinct from the existing AVA and therefore appropriate for separate recognition. If a petition seeks to expand the boundaries of an existing AVA, the petition must show how the name of the existing AVA also applies to the expansion area, and must demonstrate that the area covered by the expansion has the same distinguishing features as those of the existing AVA, and different features from those of the area outside the proposed, new boundary.

Petition To Establish the Contra Costa AVA and To Modify the Boundaries of the San Francisco Bay and Central Coast AVAs

TTB received a petition from Patrick Shabram, on behalf of the Contra Costa Winegrowers Association, proposing to establish the ''Contra Costa'' AVA and to modify the boundaries of the existing San Francisco Bay (27 CFR 9.157) and Central Coast (27 CFR 9.75) AVAs. The proposed Contra Costa AVA is located in Contra Costa County, California, and is partially within the two established AVAs. The approximately 167,146-acre proposed AVA currently contains at least 14 wineries and at least 60 commercial vineyards covering a total of approximately 1,700 acres. The most commonly grown grape varietal in the proposed AVA is Zinfandel, but other varieties grown in the proposed AVA include petite sirah, mourvedre, chardonnay, and cabernet sauvignon.

The westernmost portion of the proposed Contra Costa AVA would lie within the existing San Francisco Bay and Central Coast AVAs. To address the partial overlap and account for viticultural similarities, the petition also proposes to expand the boundaries of both established AVAs so that the entire proposed Contra Costa AVA would be included within both AVAs. The proposed expansion would increase the size of the San Francisco Bay and Central Coast AVAs by approximately 109,955 acres each.

The distinguishing features of the proposed Contra Costa AVA are its topography and climate. The petition also included information about the soils of the proposed AVA, but did not provide a clear comparison of the soils in the proposed AVA to those of the surrounding regions. Therefore, TTB is unable to determine if soils are a distinguishing feature of the proposed AVA. Unless otherwise noted, all information and data contained in the following sections are from the petition to establish the proposed AVA and its supporting exhibits.

Proposed Contra Costa AVA

Name Evidence

The proposed Contra Costa AVA takes its name from its location within Contra Costa County, California. According to the petition, the Spanish phrase ''contra costa'' translates to ''opposite coast,'' which is a reference to the county's position opposite San Francisco on San Francisco Bay. The petition states that prior to Prohibition, Contra Costa County was one of the Bay Area's leading winegrowing regions. The petition notes that grapes from vineyards in the region have a reputation for having their own ''Contra Costa style,'' [1] described as an ''earthy, dusty and leathery quality'' attributed to the ''defining terroir'' of the region.

The petition included multiple examples of the use of the name ''Contra Costa'' to describe the region of the proposed AVA. For example, the Contra Costa Water District supplies water to customers within the proposed AVA. Non-profit agencies serving the proposed AVA include Contra Costa Humane Society, Contra Costa Senior Legal Services, Meals on Wheels of Contra Costa, and Sustainable Contra Costa. Other businesses within the proposed AVA include Contra Costa Hardwood Floor Service, Alameda Contra Costa Fire Extinguisher Equipment Company, Contra Costa Farms LLC, Contra Costa Cinema, Contra Costa Country Club, Contra Costa Auto Sales, and Contra Costa Powersports.

Boundary Evidence

The proposed Contra Costa AVA is located in north-central and eastern Contra Costa County, in California, along the southern coast of Suisun Bay. The northern boundary of the proposed AVA follows the southern shore of Suisun Bay. The eastern boundary follows a series of straight lines drawn between points on the USGS maps and approximates the boundary between Contra Costa County and San Joaquin County, which is farther inland and receives less direct marine influence than the proposed AVA. The southern

[1] *http://wine.appellationamerica.com/wine-region/Contra-Costa-County.html.*

boundary is mostly comprised of a series of straight lines drawn between points on the maps and separates the proposed AVA from higher elevations and inland regions with less marine influence. The western boundary also follows a series of straight lines between points and separates the proposed AVA from regions with steeper slopes and greater marine influence, including the established Lamorinda AVA (27 CFR 9.254), which shares a portion of its boundary with the proposed Contra Costa AVA.

Distinguishing Features

According to the petition, the distinguishing features of the proposed Contra Costa AVA are its topography and climate. The Suisun Bay is directly to the north of the proposed AVA. Although some islands are located in the bay, the petition excluded them due to their waterlogged, highly organic, acidic soils that are unlikely to be suitable for viticulture. As a result, the following sections will describe the features of the regions to the east, south, and west of the proposed AVA.

Topography

According to the petition, the proposed Contra Costa AVA consists of relatively flat terrain interrupted in places by rolling hills. Most of the terrain has elevations below 100 feet, and nearly all of the proposed AVA is below 1,000 feet. Slope angles within the proposed AVA are typically less than 5 percent, but can reach up to 30 percent in some of the hills along the western and southern boundary and in the ridgeline that runs north-south between Concord and Bay Point. Although some areas of steep slopes are included in the proposed AVA in order to simplify the boundary, the petition states that over 71 percent of the proposed AVA has slopes with less than 5 percent grade, and 78 of the proposed AVA has slopes with less than 10 percent grade. The petition states that cool, heavy marine air stays at lower elevations, leading to diurnal cooling. Areas at higher elevations are above the layer of marine air and experience less cooling. Differences in temperatures can cause differences in grape development, the timing of harvest, and sugar accumulation and acidity in the grapes.

East of the proposed AVA, the terrain is generally flat as one moves into the California Delta and the San Joaquin Valley. To the south and west of the proposed AVA, the terrain becomes steeper, with slope angles generally exceeding 20 percent and commonly above 30 percent. Elevations to the west and south of the proposed AVA are also generally higher than within the proposed AVA, exceeding 1,300 feet in the region to the west and reaching 3,849 feet at the summit of Mt. Diablo to the south of the proposed AVA.

Climate

The petition provided information about the climate of the proposed Contra Costa AVA. According to the petition, the warm days and cool nights affect the character of the grapes grown in the proposed AVA and the resulting wine, resulting in a ''definitive Contra Costa style'' [2] that is characterized by an ''earthy, dusty and leathery quality.'' [3]

Climate data in the petition included growing degree day accumulations [4] and average annual precipitation amounts. The petition also included information about the average growing season maximum temperatures and the average minimum temperatures from within the proposed AVA and the surrounding regions. However, because the temperature data was from only 2 years, TTB was unable to determine if maximum and minimum temperatures are a distinguishing feature of the proposed AVA, and the information is not included in this rulemaking document.[5]

TABLE 1—2014–2019 GROWING DEGREE DAY DATA

Location (direction from proposed AVA)	2019	2018	2017	2016	2015	2014
Brentwood [6] (within)	4,275	4,141	4,157	4,090	N/A	4,195
Concord [7] (within)	3,634	3,579	N/A	N/A	3,825	3,008
Jersey Island [8] (northeast)	3,961	3,955	4,047	N/A	N/A	N/A
Walnut Creek-Lakewood [9] (south)	4,211	4,025	4,417	N/A	N/A	N/A
San Joaquin Valley [10] (east)	3,932	4,423	4,355	N/A	N/A	N/A
Harvey O. Banks Pumping Station [11] (south)	4,633	4,535	4,840	4,607	4,767	4,973
Moraga [12] (southwest)	2,781	2,729	2,809	2,716	2,665	2,820
Briones Regional Park [13] (west)	3,281	3,156	N/A	3,124	3,279	3,469
Oakland Hills [14] (west)	2,590	2,327	2,859	2,386	2,598	2,602
El Cerrito [15] (west)	2,118	1,848	2,222	2,005	2,371	2,308

Within the proposed Contra Costa AVA, annual GDD accumulations are generally warm, ranging from a low of 3,008 to a high of 4,275. To the northeast of the proposed AVA, at the Jersey Island location, GDD accumulations are similar to those found in the proposed AVA. However, the petition states that this region was not included in the proposed AVA due to a difference in soil types. South of the proposed AVA, in the Lakewood region of Walnut Creek, GDD accumulations are also similar to those within the proposed AVA, although the 2017 GDD accumulations for Lakewood were higher. Additionally, the petition states this region was not included in the proposed AVA because it is a largely residential area that is not suited for commercial viticulture. Farther south, at the Harvey O. Banks pumping station in Byron, GDD accumulations are significantly higher than within the

[2] *http://wine.appellationamerica.com/wine-region/Contra-Costa-County.html.*

[3] Ibid.

[4] *See* Albert J. Winkler, *General Viticulture* (Berkeley: University of California Press, 1974), pages 61–64. In the Winkler climate classification system, annual heat accumulation during the growing season, measured in annual Growing Degree Days (GDDs), defines climatic regions. One GDD accumulates for each degree Fahrenheit that a day's mean temperature is above 50 degrees F, the minimum temperature required for grapevine growth.

[5] The maximum and minimum temperature data is included in Tables 4 and 5 of the petition, which is posted within Docket No. TTB–2023–0004 at *https://www.regulations.gov.*

[6] Station identified in petition as CIMIS47.

[7] Station identified in petition as CIMIS170.

[8] Station identified in petition as CIMIS247.

[9] Station identified in petition as KCAWALNU35.

[10] Station identified in petition as CIMIS248.

[11] Station identified in petition as HBP.

[12] Station identified in petition as CIMIS178.

[13] Station identified in petition as BNE.

[14] Station identified in petition as ONO.

[15] Station identified in petition as CIMIS213.

proposed AVA. To the east, within the San Joaquin Valley, GDD accumulations are generally warmer than within the proposed AVA, as the marine influence decreases as one moves farther inland. West of the proposed AVA, as one moves closer to San Francisco Bay and the Pacific Ocean, GDD accumulations are lower than within the proposed AVA. GDD accumulations west of the proposed AVA range from 1,848 at El Cerrito, which is adjacent to San Francisco Bay, to 3,469 at Briones Regional Park, which is further inland and closer to the proposed Contra Costa AVA.

The petition also includes annual precipitation amounts for the proposed AVA and the surrounding regions. The data is shown in the following table. Four stations with two years or less of precipitation data, which are located to the northeast, east, and southeast of the proposed AVA, were excluded from this chart, but are included in the petition. The precipitation data shows that the proposed Contra Costa AVA received less rainfall than the regions to the west and southwest.

TABLE 2—ANNUAL [16] PRECIPITATION AMOUNTS IN MILLIMETERS

[mm]

Location (direction from proposed AVA)	2017–2018	2016–2017	2015–2016	2014–2015	2013–2014
Brentwood (within)	243	345	497	435	279
Antioch [17] (within)	330	531	391	405	301
Concord (within)	351	565	N/A	335	232
Briones Regional Park (west)	N/A	N/A	655	469	374
Moraga (southwest)	593	1,712	1,179	712	907
Oakland Hills (west)	565	1,073	737	561	490
El Cerrito (west)	483	N/A	610	553	411

Summary of Distinguishing Features

The proposed Contra Costa AVA is distinguished from the surrounding regions by its topography and climate. The proposed AVA is a region of relatively flat terrain interrupted in places by rolling hills. Slope angles are typically less than 5 percent, and most of the terrain has elevations below 100 feet. Within the proposed AVA, GDD accumulations range from 3,008 to 4,275, and average annual precipitation amounts range from 232 mm to 565 mm.

North of the proposed AVA is Suisun Bay. Although there are islands within the bay, the petition omitted them from the proposed AVA due to their mucky soils that are unsuitable for commercial viticulture. To the east of the proposed AVA is the California Delta and the San Joaquin Valley, which are generally flat and lack the rolling hills that interrupt the proposed Contra Costa AVA. GDD accumulations east of the proposed AVA are generally higher, ranging from 3,932 to 4,423. South of the proposed AVA, the terrain is steeper, with slope angles generally exceeding 20 percent grade. GDD accumulations are also higher, ranging from 4,025 to 4,973. West of the proposed AVA, elevations are higher and can exceed 1,300 feet. The climate west of the proposed AVA is generally cooler and wetter, with GDD accumulations ranging from 1,848 to 3,469 and average annual precipitation amounts ranging from 411 mm to 737 mm.

Comparison of the Proposed Contra Costa AVA to the Existing San Francisco Bay AVA

The San Francisco Bay AVA was established by T.D. ATF–407, which was published in the **Federal Register** on October 24, 1985 (50 FR 43130). T.D. ATF–407 describes the San Francisco Bay AVA as entirely being within seven counties, including the eastern portion of Contra Costa County. The distinguishing feature of the San Francisco Bay AVA is ''a marine climate which is heavily influenced by the proximity of the San Francisco Bay and the Pacific Ocean.'' T.D. ATF–407 also notes that the eastern boundary of the AVA was chosen, in part, as a way of separating the AVA from the drier, warmer inland region of the Central Valley, which lacks a strong marine influence.

The proposed Contra Costa AVA is partially located within the San Francisco Bay AVA and shares some of the characteristics of the larger established AVA. For example, similar to other locations in the San Francisco AVA, the proposed AVA is affected by cool, moist air from the Pacific Ocean and the San Francisco Bay. The proposed AVA is also generally cooler and wetter than the inland region to the east. However, the proposed Contra Costa AVA has some characteristics that distinguish it from the larger San Francisco Bay AVA. For instance, although the proposed Contra Costa AVA is influenced by marine air from San Francisco Bay, the proposed AVA is not adjacent to San Francisco Bay, the air travelling through Suisun Bay instead. Additionally, while T.D. ATF–407 describes the San Francisco Bay AVA as having a cool Mediterranean climate classification, the proposed Contra Costa AVA also includes regions with a warm Mediterranean climate classification.

Comparison of the Proposed Contra Costa AVA to the Existing Central Coast AVA

The Central Coast AVA was established by T.D. ATF–216, which also established the San Francisco Bay AVA. T.D. ATF–216 describes the Central Coast AVA as a region between the Pacific Ocean and the Coast Ranges of California. The Central Coast AVA has a climate that is greatly affected by the marine influence, with the region to the east of the AVA having a more arid climate.

The proposed Contra Costa AVA is partially located within the Central Coast AVA and shares some of the characteristics of the larger established AVA. For example, similar to other locations in the Central Coast AVA, the proposed AVA is affected by cool, moist air from the Pacific Ocean, which enters the region from San Francisco Bay via Suisun Bay. The proposed AVA is also generally cooler and wetter than the region to the east. However, the proposed Contra Costa AVA has some characteristics that distinguish it from the larger, multi-county Central Coast AVA. For instance, being a smaller region, the proposed AVA has less

[16] The period of record is from October 1 of one year to September 30 of the next year.

[17] Station identified in petition as KCAANTIO10.

topographic variety than the Central Coast AVA. Additionally, being adjacent to the shoreline of Suisun Bay, the proposed AVA is more directly exposed to cool marine air than other regions of the Central Coast AVA, such as the Paso Robles AVA (27 CFR 9.84), which is farther inland and, according to T.D. ATF–216, receives its marine air via the Salinas River, which empties into Monterey Bay.

Proposed Modification of the San Francisco Bay AVA

As previously noted, the petition to establish the proposed Contra Costa AVA also requested an expansion of the established San Francisco Bay AVA. The San Francisco Bay AVA is located to the west of the proposed Contra Costa AVA and overlaps the western third of the proposed AVA. In order to eliminate the partial overlap and account for viticultural similarities, the petition proposed moving the eastern boundary of the San Francisco Bay AVA farther to the east to encompass the entire proposed Contra Costa AVA.

Currently, the San Francisco Bay AVA boundary in the vicinity of the proposed Contra Costa AVA and the proposed expansion area follows a straight line drawn from the summit of Mount Diablo northwest to the summit of Mulligan Hill, which is east of the city of Concord. The boundary then proceeds northwest in a straight line to the southern shoreline of Suisun Bay near the Seal Islands.

The proposed boundary modification would move the San Francisco Bay AVA boundary east so that it would be concurrent with the boundary of the proposed Contra Costa AVA and entirely encompass the proposed AVA. The proposed boundary modification would begin at the point where the current San Francisco Bay AVA boundary intersects the summit of Mount Diablo. From there, the boundary would become concurrent with the southern boundary of the proposed Contra Costa AVA, proceeding west in a straight line to the intersection of Kirker Pass Road and the 680-foot elevation contour. The proposed expansion boundary would then continue to follow the proposed Contra Costa AVA boundary in a counterclockwise direction, to the intersection of Bethel Island Road and Dutch Slough. The proposed boundary would continue following the proposed Contra Costa AVA boundary west along the shoreline of Dutch Slough, Big Break, New York Slough, and Suisun Bay, to the point where both the proposed expansion boundary and the proposed Contra Costa AVA boundary intersect with the current San Francisco Bay AVA boundary at the benchmark BM15 along the shoreline of Suisun Bay, near the Seal Islands. The proposal would increase the size of the San Francisco Bay AVA by approximately 109,955 acres.

The expansion petition included evidence that the name ''San Francisco Bay'' applies to the eastern region of Contra Costa County, which includes the proposed expansion area. For example, the Association of Bay Area Governments includes the Contra Costa County government as well as the governments of cities within the proposed expansion area, including Brentwood and Antioch.[18] Another example is that the Brentwood California Irrigation Management Information System (CIMIS) weather station is identified on the CIMIS website as being in the ''San Francisco Bay Region.'' [19] The expansion also noted that an exhibit to the petition in T.D. ATF–407 included a listing of the ''Largest Bay Area Wineries'' from the *San Francisco Business Times*.[20] The list included Cline Cellars, which is located in the city of Oakley, within the proposed expansion area. Finally the expansion petition states that T.D. ATF–407 also included a map titled ''Bay Area Place Names,'' which included the cities of Pittsburg, Antioch, Brentwood, and Bryon, which are all located in the proposed expansion area.[21]

The petition claims that the region of the proposed expansion area has a climate that is similar to that of the established San Francisco Bay AVA and cooler than the Central Valley to the east. The petition states that T.D. ATF–407 identified the San Francisco Bay AVA as Regions I through III on the Winkler scale,[22] indicating GDD accumulations of 3,500 (when calculated using degrees Fahrenheit) or less. The city of Livermore, which is within the San Francisco Bay AVA, was said to have a GDD accumulation of 3,400. The Central Valley, which is east of both the San Francisco Bay AVA and the proposed expansion area, was described as Region V, indicating GDD accumulations over 4,000. The expansion petition notes that Winkler's *General Viticulture,* which was cited in T.D. ATF–407, indicated that the cities of Antioch and Brentwood, which are located in the proposed expansion area, were identified with GDD accumulations of 4,200 and 4,100, respectively, which may have explained their exclusion from the original San Francisco Bay AVA.

The expansion petition notes that current calculation of GDDs suggest that portions of the San Francisco Bay AVA have GDD accumulations that would place them in Region IV. For example, using climate normals from 1981–2010 and the same Winkler calculation method, the city of Livermore is 3,663, which would categorize it as Region IV. Similarly, using 1981–2010 data and the Winkler calculation method for the city of Brentwood, which is within the proposed expansion area, results in 3,801 GDDs, which also categorizes it within Region IV. Calculations for the city of Antioch resulted in 4,020 GDDs, which is within the Region V category. However, GDD accumulations for all three locations are still significantly lower than within the Central Valley city of Modesto, which has a GDD accumulation of 4,676. The petition notes that these more recent GDD calculations are not to suggest that Livermore should be removed from the San Francisco Bay AVA but rather that earlier figures may be outdated or misleading, due to climate change and shortcomings in using Winkler GDD calculations as a tool for analyzing marine influence from San Francisco Bay.

T.D. ATF–407 stated that the San Francisco Bay AVA has precipitation amounts that are lower than the regions to the north and higher than locations in the Central Valley to the east. The expansion petition provided data suggesting that the same is true for the proposed expansion area. The 1981–2010 climate normals showed that annual precipitation in the city of Livermore, within the San Francisco Bay AVA, was 387 mm. Precipitation amounts within Brentwood and Antioch, within the proposed expansion area, were 326 mm and 336 mm, respectively (approximately 12 and 14 inches). Although these precipitation amounts are lower than the amount for

[18] *https://abag.ca.gov/about-abag/what-we-do/our-members.*

[19] See Exhibit U to the petition, which is posted within Docket No. TTB–2023–0004 at *https://www.regulations.gov.*

[20] Included in the expansion petition as Exhibit V; see Docket No. TTB–2023–0004 at *https://www.regulations.gov.*

[21] Included in the expansion petition as Exhibit X see Docket No. TTB–2023–0004 at *https://www.regulations.gov.*

[22] *See* Albert J. Winkler, *General Viticulture* (Berkeley: University of California Press, 1974), pages 61–64. In the Winkler climate classification system, annual heat accumulation during the growing season, measured in annual GDDs, defines climatic regions. One GDD accumulates for each degree Fahrenheit that a day's mean temperature is above 50 degrees F, the minimum temperature required for grapevine growth. The Winkler scale regions are as follows: Region Ia, 1,500–2,000 GDDs; Region Ib, 2,000–2,500 GDDs; Region II, 2,500–3,000 GDDs; Region III, 3,000–3,500 GDDs; Region IV, 3,500–4,000 GDDs; Region V, 4,000–4,900 GDDs.

Livermore, the differences between these amounts and amounts in regions to the north of the San Francisco Bay AVA are even greater. For example, the cities of Napa, Petaluma, and Sonoma had precipitation amounts of 512 mm, 677 mm, and 798 mm, respectively. Additionally, the expansion petition notes that an exhibit in the original San Francisco Bay AVA petition showed the city of Antioch as having precipitation amounts of 13 inches, which is equivalent to the amount shown in the same exhibit for the city of San Jose, within the San Francisco Bay AVA, suggesting that precipitation amounts in Antioch were not a reason to exclude it from the San Francisco Bay AVA.[23] Finally, the Brentwood and Antioch precipitation amounts from 1981–2010 are also higher than the Central Valley locations of Fresno and Los Banos, which received amounts of 292 mm and 253 mm, respectively.

Proposed Modification of the Central Coast AVA Boundary

As previously noted, the petition to establish the proposed Contra Costa AVA also requested an expansion of the established Central Coast AVA. The proposed Contra Costa AVA is located along the eastern boundary of the Central Coast AVA. The western third of the proposed AVA (that is, the region encompassing the city of Concord and points west) would, if established, be located within the current boundary of the Central Coast AVA. However, unless the boundary of the Central Coast AVA is modified, the remaining two-thirds of the proposed AVA would be outside the Central Coast AVA. If approved, the proposed Central Coast AVA expansion would place the proposed Contra Costa AVA entirely within the Central Coast AVA.

Currently, the Central Coast AVA boundary in the vicinity of the proposed Contra Costa AVA and the proposed expansion area is concurrent with the current boundary of the San Francisco Bay AVA. The boundary follows a straight line drawn northwest to southeast from the southern shoreline of Suisun Bay near the Seal Islands to the summit of Mulligan Hill, which is east of the city of Concord. The boundary then follows a straight line southeast from Mulligan Hill to the summit of Mount Diablo, which is south of the proposed Contra Costa AVA, and then continues southeast in a straight line to the summit of Brushy Peak.

The proposed boundary modification would move the Central Coast AVA boundary east so that it would be concurrent with the boundary of the proposed Contra Costa AVA and entirely encompass the proposed AVA. The proposed boundary modification would begin at the point where the current Central Coast boundary intersects the benchmark BM15 along the shoreline of Suisun Bay, near the Seal Islands. From there, the proposed boundary would become concurrent with the northern boundary of the proposed Contra Costa AVA, continuing east along the shoreline of Suisun Bay, New York Slough, Big Break, and Dutch Slough to the intersection of the shoreline of Dutch Slough with Bethel Island Road. The proposed Central Coast AVA boundary would then continue to follow the proposed Contra Costa AVA boundary in a clockwise motion to the point where both boundaries rejoin the current Central Coast AVA boundary at the intersection of Kirker Pass Road and the 680-foot elevation contour, southeast of the city of Concord. The proposed boundary modification would add 109,955 acres to the Central Coast AVA, an approximate 1.1 percent increase.

The expansion petition included evidence that, although only a portion of Contra Costa County was originally included in the Central Coast AVA, the name ''Central Coast'' applies to the region of the county that is within the proposed expansion area, as well. For example, the web page for *WineSearcher.Com* states that Contra Costa County is in ''California's Central Coast AVA.'' [24] The website lists wines from grapes grown in the eastern portion of Contra Costa County, including wines from Cline Cellars and Viano Vineyards. The web page does not distinguish between the western portion of Contra Costa County, which is in the Central Coast AVA, and the eastern portion, which is not. Although the eastern portion of the county is not currently within the Central Coast AVA and none of the wines from that region use ''Central Coast'' as an appellation of origin, the inclusion of wines from the eastern portion of Contra Costa County suggests that wine industry members and consumers associate the entire county with the name ''Central Coast.''

The expansion petition also notes that California law associates the region of the proposed AVA with the ''Central Coast'' name when it states, ''Only dry wine produced entirely from grapes grown within the Counties of Sonoma, * * *, Contra Costa, * * * and Marin may be labeled with the words 'California central coast dry wine.' '' [25] The petition notes that TTB would not allow ''Central Coast'' as an appellation of origin for wines made primarily from grapes grown outside the boundaries as described in 27 CFR 9.75, but the California the statute establishes an historical association between ''Central Coast'' and the entirety of Contra Costa County.

The expansion petition also notes that the California Mid-State Fair held a Central Coast Wine Competition ''to promote the quality and style of wines being produced on the Central Coast.'' [26] Wines from Contra Costa County were eligible to enter, with no distinction being made between wines made within the portion of the county within the Central Coast AVA and the portion outside the AVA. The petition states that the inclusion of wines from anywhere in the county demonstrates yet another association between the entire Contra Costa County and the term ''Central Coast.''

Finally, the expansion petition notes that the U.S. Bureau of Land Management's Central Coast Field Office includes all of Contra Costa County in its Central Coast administrative unit,[27] further suggesting that the name ''Central Coast'' does not refer only to the western portion of the county that is currently within the Central Coast AVA.

The expansion petition claims that the proposed Central Coast AVA expansion area has features that are similar to the primary distinguishing feature of the Central Coast AVA listed in T.D. ATF–216, namely a marine-influenced climate. The petition included GDD data from Brentwood, which is within the proposed Central Coast AVA expansion area; Clayton, Concord, and Walnut Creek, which are currently within the Central Coast AVA; and Jersey Island, which is northeast of the proposed expansion area and not located within any AVA. The petition also included data from stations in Livermore and Concord, which are also

[23] The table was included as Exhibit Q in the original petition and is also included as Exhibit Y to the expansion petition, which are both posted in Docket TTB–2023–0004 at *https://www.regulations.gov.*

[24] *https://www.wine-searcher.com/regions-contra+costa+county.* See also Exhibit O to the petition as posted within Docket No. TTB–2023–0004 at *https://www.regulations.gov.*

[25] California Business and Professional Code § 25236.

[26] *https://centralcoastwinecomp.com/2020/03/30/registration-opens-for-the-2020-central-coast-wine-competition.*

[27] See Exhibits P and Q to the petition as posted within Docket No. TTB–2023–0004 at *https://www.regulations.gov.*

within the Central Coast AVA, but because the data was from less than 3 years, TTB is not including it in this table. The GDD data from the other locations is shown in the following table.

TABLE 3—GROWING DEGREE DAY ACCUMULATIONS FROM WITHIN CENTRAL COAST AVA AND PROPOSED EXPANSION AREA

Location	2019	2018	2017	2016
Brentwood	4,275	4,141	4,175	4,090
Clayton	N/A	4,489	4,656	4,097
Walnut Creek-Lakewood	4,211	4,025	4,417	N/A
Jersey Island	3,961	3,955	4,047	N/A

The GDD accumulations from within the proposed expansion area are within the range of GDD accumulations from locations within the Central Coast AVA, suggesting a similar climate. The GDD accumulations from the proposed expansion area are also higher than those from Jersey Island, which is outside both the proposed expansion area and the Central Coast AVA.

The expansion petition also notes that T.D. ATF–407, which published in the **Federal Register** on January 20, 1999 (64 FR 3015), expanded the Central Coast AVA. The *Sunset Magazine Western Garden Book*'s growing zones were cited in that final rule as evidence that the expansion area should be included in the Central Coast AVA. T.D. ATF–407 states that the Central Coast AVA, at that time, included growing zones 7, 14, 15, 16, and 17. The current expansion petition notes that the proposed expansion area is in zone 14, which is described as ''Northern California's inland areas with some ocean influence.'' [28] The proposed expansion area's placement in zone 14 further indicates a marine-influenced climate similar to that of the established Central Coast AVA.

TTB Determination

TTB concludes that the petition to establish the approximately 167,146-acre ''Contra Costa'' AVA and to concurrently modify the boundaries of the existing San Francisco Bay and Central Coast AVAs merits consideration and public comment, as invited in this document.

TTB is proposing the establishment of the new AVA and the modification of the existing San Francisco Bay AVA as one action. Accordingly, if TTB establishes the proposed Contra Costa AVA, then the proposed boundary modification of the San Francisco Bay AVA would be approved concurrently. If TTB does not establish the proposed AVA, then the San Francisco Bay AVA boundary would not be modified.

[28] *https://www.sunsetwesterngarden collection.com/climate-zones/zone/central-california.*

Furthermore, TTB is proposing the establishment of the new AVA and the modification of the existing Central Coast AVAs as separate actions, per the request of the petitioner. Accordingly, if TTB establishes the proposed AVA, the Central Coast AVA would be modified. However, if TTB does not establish the new AVA, the Central Coast AVA may still be modified as proposed in this document.

Boundary Description

See the narrative boundary descriptions of the petitioned-for AVA and the boundary modifications of the two established AVAs in the proposed regulatory text published at the end of this document.

Maps

The petitioner provided the required maps, and they are listed below in the proposed regulatory text. You may also view the proposed Contra Costa AVA boundary and the proposed boundary modifications of the San Francisco Bay and Central Coast AVAs on the AVA Map Explorer on the TTB website, at *https://www.ttb.gov/wine/ava-map-explorer.*

Impact on Current Wine Labels

Part 4 of the TTB regulations prohibits any label reference on a wine that indicates or implies an origin other than the wine's true place of origin. For a wine to be labeled with an AVA name, at least 85 percent of the wine must be derived from grapes grown within the area represented by that name, and the wine must meet the other conditions listed in § 4.25(e)(3) of the TTB regulations (27 CFR 4.25(e)(3)). If the wine is not eligible for labeling with an AVA name and that name appears in the brand name, then the label is not in compliance and the bottler must change the brand name and obtain approval of a new label. Similarly, if the AVA name appears in another reference on the label in a misleading manner, the bottler would have to obtain approval of a new label. Different rules apply if a wine has a brand name containing an AVA name that was used as a brand name on a label approved before July 7, 1986. See § 4.39(i)(2) of the TTB regulations (27 CFR 4.39(i)(2)) for details.

If TTB establishes this proposed AVA, its name, ''Contra Costa,'' will be recognized as a name of viticultural significance under § 4.39(i)(3) of the TTB regulations (27 CFR 4.39(i)(3)). The text of the proposed regulation clarifies this point. Consequently, wine bottlers using the name ''Contra Costa'' in a brand name, including a trademark, or in another label reference as to the origin of the wine, would have to ensure that the product is eligible to use the AVA name as an appellation of origin if this proposed rule is adopted as a final rule. TTB notes that the phrase ''Contra Costa County'' is already recognized as a term of viticultural significance by virtue of being the name of a county. Therefore, labels using ''Contra Costa County'' as an appellation of origin would not be affected by the establishment of this AVA.

If approved, the establishment of the proposed Contra Costa AVA and the concurrent expansions of the San Francisco Bay AVA and the Central Coast AVA would allow vintners to use ''Contra Costa,'' ''San Francisco Bay,'' and ''Central Coast'' as AVA appellations of origin for wines made primarily from grapes grown in the proposed Contra Costa AVA if the wines meet the eligibility requirements for the appellation. Similarly, if the Central Coast AVA boundary is modified without the establishment of the proposed Contra Costa AVA, vintners would be able to use ''Central Coast'' as an AVA appellation of origin for wines made primarily within the proposed expansion area if the wines meet the eligibility requirements for the appellation.

Public Participation

Comments Invited

TTB invites comments from interested members of the public on whether TTB should establish the proposed Contra Costa AVA and concurrently modify the boundaries of the established San

Francisco Bay and Central Coast AVAs. TTB is interested in receiving comments on the sufficiency and accuracy of the name, boundary, topography, and other required information submitted in support of the Contra Costa AVA petition. In addition, given the proposed AVA's partial location within the existing San Francisco Bay and Central Coast AVAs, TTB is interested in comments on whether the evidence submitted in the petition regarding the distinguishing features of the proposed AVA sufficiently differentiates it from the existing AVA. TTB is also interested in comments on whether the geographic features of the proposed AVA are so distinguishable from the San Francisco Bay and Central Coast AVAs that the proposed Contra Costa AVA should not be part of the established AVAs. Please provide any available specific information in support of your comments.

TTB also invites comments on the proposed expansion of the existing Central Coast and San Francisco Bay AVAs. TTB is interested in comments on whether the evidence provided in the petition sufficiently demonstrates that the proposed expansion area is similar enough to the San Francisco Bay AVA and the Central Coast AVA to be included in them. Comments should address the pertinent information that supports or opposes the proposed Central Coast AVA and San Francisco Bay AVA boundary expansions.

Because of the potential impact of the establishment of the proposed Contra Costa AVA on wine labels that include the term ''Contra Costa'' as discussed above under Impact on Current Wine Labels, TTB is particularly interested in comments regarding whether there will be a conflict between the proposed area name and currently used brand names. If a commenter believes that a conflict will arise, the comment should describe the nature of that conflict, including any anticipated negative economic impact that approval of the proposed AVA will have on an existing viticultural enterprise. TTB is also interested in receiving suggestions for ways to avoid conflicts, for example, by adopting a modified or different name for the proposed AVA.

Submitting Comments

You may submit comments on this proposal by using one of the following methods:

- *Federal e-Rulemaking Portal:* You may send comments via the online comment form posted with this document within Docket No. TTB–2023–0004 on ''*Regulations.gov,*'' the Federal e-rulemaking portal, at *https://www.regulations.gov.* A direct link to that docket is available under Notice No. 223 on the TTB website at *https://www.ttb.gov/wine/wine-rulemaking.shtml.* Supplemental files may be attached to comments submitted via *Regulations.gov.* For complete instructions on how to use *Regulations.gov,* visit the site and click on the ''Help'' tab at the top of the page.
- *U.S. Mail:* You may send comments via postal mail to the Director, Regulations and Rulings Division, Alcohol and Tobacco Tax and Trade Bureau, 1310 G Street NW, Box 12, Washington, DC 20005.

Please submit your comments by the closing date shown above in this document. Your comments must reference Notice No. 223 and include your name and mailing address. Your comments also must be made in English, be legible, and be written in language acceptable for public disclosure. We do not acknowledge receipt of comments, and we consider all comments as originals.

Your comment must clearly state if you are commenting on your own behalf or on behalf of an organization, business, or other entity. If you are commenting on behalf of an organization, business, or other entity, your comment must include the entity's name as well as your name and position title. If you comment via *Regulations.gov,* please enter the entity's name in the ''Organization'' blank of the online comment form. If you comment via postal mail, please submit your entity's comment on letterhead.

You may also write to the Administrator before the comment closing date to ask for a public hearing. The Administrator reserves the right to determine whether to hold a public hearing.

Confidentiality

All submitted comments and attachments are part of the public record and subject to disclosure. Do not enclose any material in your comments that you consider to be confidential or inappropriate for public disclosure.

Public Disclosure

TTB will post, and you may view, copies of this document, selected supporting materials, and any online or mailed comments received about this proposal within Docket No. TTB–2023–0004 on the Federal e-rulemaking portal, *Regulations.gov,* at *https://www.regulations.gov.* A direct link to that docket is available on the TTB website at *https://www.ttb.gov/wine/wine-rulemaking.shtml* under Notice No. 223. You may also reach the relevant docket through the *Regulations.gov* search page at *https://www.regulations.gov.* For instructions on how to use *Regulations.gov,* visit the site and click on the ''Help'' tab at the top of the page.

All posted comments will display the commenter's name, organization (if any), city, and State, and, in the case of mailed comments, all address information, including email addresses. TTB may omit voluminous attachments or material that it considers unsuitable for posting.

You may also obtain copies of this proposed rule, all related petitions, maps and other supporting materials, and any electronic or mailed comments that TTB receives about this proposal at 20 cents per 8.5- x 11-inch page. Please note that TTB is unable to provide copies of USGS maps or any similarly-sized documents that may be included as part of the AVA petition. Contact TTB's Regulations and Rulings Division by email using the web form at *https://www.ttb.gov/contact-rrd,* or by telephone at 202–453–1039, ext. 175, to request copies of comments or other materials.

Regulatory Flexibility Act

TTB certifies that this proposed regulation, if adopted, would not have a significant economic impact on a substantial number of small entities. The proposed regulation imposes no new reporting, recordkeeping, or other administrative requirement. Any benefit derived from the use of a viticultural area name would be the result of a proprietor's efforts and consumer acceptance of wines from that area. Therefore, no regulatory flexibility analysis is required.

Executive Order 12866

This proposed rule is not a significant regulatory action as defined by Executive Order 12866. Therefore, it requires no regulatory assessment.

Drafting Information

Karen A. Thornton of the Regulations and Rulings Division drafted this document.

List of Subjects in 27 CFR Part 9

Wine.

Proposed Regulatory Amendment

For the reasons discussed in the preamble, we propose to amend title 27, chapter I, part 9, Code of Federal Regulations, as follows:

PART 9—AMERICAN VITICULTURAL AREAS

■ 1. The authority citation for part 9 continues to read as follows:

Authority: 27 U.S.C. 205.

Subpart C—Approved American Viticultural Areas

■ 2. Amend § 9.75 by:
■ a. Removing the word ''and'' at the end of paragraph (b)(42);
■ b. Removing the ''.'' at the end of paragraph (b)(43) and adding a ''; '' in its place;
■ c. Adding paragraphs (b)(44) through (55);
■ d. Revising paragraphs (c)(4) through (c)(6);
■ e. Redesignating paragraphs (c)(7) through (c)(43) as paragraphs (c)(23) through (c)(59);
■ f. Adding new paragraphs (c)(7) through (c)(22).

The revisions and additions read as follows:

§ 9.75 Central Coast.

* * * * *

(b) * * *

(44) Benicia, California, scale 1:24,000, dated 2018;

(45) Vine Hill, California, scale 1:24,000, dated 2018;

(46) Honker Bay, California, scale 1:24,000, dated 2018;

(47) Antioch North, California, scale 1:24,000, dated 2018;

(48) Jersey Island, California, scale 1:24,000, dated 2018;

(49) Bouldin Island, California, scale 1:24,000, dated 2018;

(50) Woodward Island, California, scale 1:24,000, dated 2018;

(51) Clifton Court Forebay, California, scale 1:24,000, dated 2018;

(52) Byron Hot Springs, California, scale 1:24,000, dated 2018;

(53) Tassajara, California, scale 1:24,000, dated 2018;

(54) Antioch South, California, scale 1:24,000, dated 2018; and

(55) Clayton, California, scale 1:24,000, dated 2018.

(c) * * *

(4) From this point, the boundary proceeds east along the shoreline of Alameda County and Contra Costa County across the Richmond, San Quentin, Mare Island, Benicia (2018 edition), Vine Hill (2018 edition), Honker Bay (2018 edition), and Antioch North maps and onto the Jersey Island map to the intersection of the shoreline with Bethel Island Road.

(5) Proceed southeast in a straight line 0.7 mile to the intersection of Wells Road and Sandmound Road.

(6) Proceed northeast in a straight line 2.7 miles, crossing onto the Bouldin Island map, to the northernmost point of Holland Tract Road.

(7) Proceed south 1.9 miles along Holland Tract Road, crossing onto the Woodward Island map, to the road's intersection with the 10-foot elevation contour.

(8) Proceed south-southeast in a straight line 4.1 miles to the intersection of Orwood Road and the Mokelumne Aqueduct.

(9) Proceed south-southwest 5.5 miles, crossing onto the Clifton Court Forebay map, to the stream gauging station on Italian Slough, just west of Widdows Island and the shared Contra Costa-San Joaquin County line.

(10) Proceed due west in a straight line to the western shore of Italian Slough, then proceed southwesterly along the shore of Italian Slough to its confluence with Brushy Creek.

(11) Proceed westerly along Brushy Creek, crossing onto the Byron Hot Springs (2018 edition) map and continuing southwesterly along the creek to its intersection with Vasco Road.

(12) Proceed northwest in a straight line 4.3 miles to the intersection of Kellogg Creek and Walnut Boulevard.

(13) Proceed west-southwest in a straight line 2.9 miles, crossing onto the Tassajara (2018 edition) map, to the intersection of Marsh Creek and Miwok Trail.

(14) Proceed northwesterly along Marsh Creek 2.4 miles, crossing onto the Antioch South map, to the creek's intersection with Deer Valley Road.

(15) Proceed northerly along Deer Valley Road 3.1 miles to its intersection with Chadbourne Road.

(16) Proceed northwest in a straight line 0.6 mile to the southwestern terminus of Tour Way.

(17) Proceed northwest in a straight line 3 miles to the intersection of Oil Canyon Trail, Stewartville Trail, and Chadbourne Road.

(18) Proceed northeasterly along the Stewartville Trail 1.9 miles to its intersection with the Contra Loma Trail.

(19) Proceed northwest in a straight line 2.5 miles to the intersection of Somersville Road and Donlan Boulevard.

(20) Proceed west-southwest in a straight line 2.5 miles, crossing onto the Clayton (2018 edition) map, to the intersection of Nortonville Road and Kirker Pass Road.

(21) Proceed southwesterly along Kirker Pass Road approximately 2.5 miles to its intersection with Hess Road.

(22) Proceed southeasterly in a straight line to the 3,849-foot summit of Mt. Diablo.

* * * * *

■ 3. Amend § 9.157 by:
■ a. Removing the word ''and'' at the end of paragraph (b)(46);
■ b. Removing the ''.'' at the end of paragraph (b)(47) and adding a ''; '' in its place;
■ c. Adding paragraphs (b)(48) through (b)(58);
■ d. Revising paragraphs (c)(22) through (c)(24);
■ e. Redesignating paragraphs (c)(25) through (c)(44) as paragraphs (c)(40) through (c)(59); and
■ f. Adding new paragraphs (c)(25) through (c)(39).

The additions and revisions read as follows:

§ 9.157 San Francisco Bay.

* * * * *

(b) * * *

(48) Clayton, California, scale 1:24,000, 2018;

(49) Antioch South, California, scale 1:24,000, 2018;

(50) Tassajara, California, scale 1:24,000, 2018;

(51) Byron Hot Springs, California, scale 1:24,000, 2018;

(52) Clifton Court Forebay, California, scale 1:24,000, 2018;

(53) Woodward Island, California, scale 1:24,000; 2018;

(54) Bouldin Island, California, scale 1:24,000, 2018;

(55) Jersey Island, California, scale 1:24,000, 2018;

(56) Antioch North, California, scale 1:24,000, 2018;

(57) Honker Bay, California, scale 1:24,000, 2018; and

(58) Vine Hill, California, scale 1:24,000, 2018.

(c) * * *

(22) Then proceed in a northwesterly direction in a straight line to the intersection of Kirker Pass Road and Hess Road on the Clayton (2018 edition) map.

(23) Proceed northeasterly along Kirker Pass Road to its intersection with Nortonville Road.

(24) Proceed east-northeast in a straight line for 2.5 miles, crossing onto the Antioch South map, to the intersection of Somersville Road and Donlan Boulevard.

(25) Proceed southeasterly in a straight line for 2.5 miles to the intersection of the Stewartville Trail and the Contra Loma Trail.

(26) Proceed southwesterly along Stewartsville Trail for 1.9 miles to the intersection of Oil Canyon Trail, Stewartsville Trail, and Chadbourne Road.

(27) Proceed southeast in a straight line for 3 miles to the southern terminus of Tour Way.

(28) Proceed southeast in a straight line for 0.6 miles to the intersection of Chadbourne Road and Deer Valley Road.

(29) Proceed southerly along Deer Valley Road for 3.1 miles to its intersection with Marsh Creek.

(30) Proceed southeasterly along Marsh Creek for 2.4 miles, crossing onto the Tassajara (2018 edition) map, to the creek's intersection with Miwok Trail.

(31) Proceed north-northeast in a straight line for 2.9 miles, crossing onto the Byron Hot Springs (2018 edition) map, to the intersection of Kellogg Creek and Walnut Boulevard.

(32) Proceed southeast in a straight line for 4.3 miles to the intersection of Brushy Creek and Vasco Road.

(33) Proceed northeasterly along Brushy Creek, crossing onto the Clifton Court Forebay map, to the confluence of Brushy Creek with the western shore of Italian Slough to a point due west of the stream gauging station on Italian Slough, just west of Widdows Island and the shared Contra Costa-San Joaquin County line.

(34) Proceed due east to the stream gauging station, then proceed north-northeast for 5.5 miles, crossing onto the Woodward Island map, to the intersection of the Mokelumne Aqueduct and Orwood Road.

(35) Proceed north-northwest in a straight line for 4.1 miles to the intersection of Holland Tract Road and the 10-foot elevation contour.

(36) Proceed north for 1.9 miles along Holland Tract Road, crossing onto the Bouldin Island map, and continuing to the northernmost point of Holland Tract Road.

(37) Proceed southeast in a straight line for 2.7 miles, crossing onto the Jersey Island map, to the intersection of Wells Road and Sandmound Road.

(38) Proceed northwest in a straight line for 0.7 mile to the intersection of Bethel Island Road and the shoreline of Dutch Slough Road.

(39) Proceed westerly along the shoreline of Dutch Slough and Big Break, crossing onto the Antioch North map, and continuing westerly along the shoreline of New York Slough, crossing onto the Honker Bay (2018 edition) map, and continuing westerly along the shoreline and onto the Vine Hill (2018 edition) map to the intersection of the shoreline and Interstate 680 at the Benicia-Martinez Bridge.

* * * * *

■ 4. Add § 9.____ to read as follows:

§ 9.____ Contra Costa.

(a) *Name.* The name of the viticultural area described in this section is ''Contra Costa''. For purposes of part 4 of this chapter, ''Contra Costa'' is a term of viticultural significance.

(b) *Approved maps.* The 15 United States Geological Survey (USGS) 1:24,000 scale topographic maps used to determine the boundary of the Contra Costa viticultural area are titled:

(1) Antioch North, California, 2018;
(2) Antioch South, California, 2018;
(3) Benicia, California, 2018;
(4) Bouldin Island, California, 2018;
(5) Briones Valley, California, 2018;
(6) Byron Hot Springs, California, 2018;
(7) Clayton, California, 2018;
(8) Clifton Court Forebay, California, 2018;
(9) Jersey Island, California, 2018;
(10) Honker Bay, California, 2018;
(11) Tassajara, California, 2018;
(12) Vine Hill, California, 2018;
(13) Walnut Creek, California, 1995;
(14) Walnut Creek, California, 2018; and
(15) Woodward Island, California, 2018.

(c) *Boundary.* The Contra Costa viticultural area is located in Contra Costa County, California. The boundary of the Contra Costa viticultural area is as described as follows:

(1) The beginning point is on the Bouldin Island map at the northernmost point of Holland Tract Road. From the beginning point, proceed south 1.9 miles along Holland Tract Road, crossing onto the Woodward Island map, to the intersection of the road with the 10-foot elevation contour; then

(2) Proceed south-southeast in a straight line 4.1 miles to the intersection of Orwood Road and the Mokelumne Aqueduct; then

(3) Proceed south-southwest in a straight line 5.5 miles, crossing onto the Clifton Court Forebay map, to the stream gauging station on Italian Slough, just west of the Widdows Island and the shared Contra Costa-San Joaquim County line; then

(4) Proceed due west in a straight line to the western shore of Italian Slough, then proceed southwesterly along the western shore Italian Slough to its confluence with Brushy Creek; then

(5) Proceed westerly along Brushy Creek, crossing onto the Byron Hot Springs map and continuing southwesterly along the creek to its intersection with Vasco Road; then

(6) Proceed northwest in a straight line 4.3 miles to the intersection of Kellogg Creek and Walnut Boulevard; then

(7) Proceed west-southwest in a straight line 2.9 miles, crossing onto the Tassajara map, to the intersection of Marsh Creek and Miwok Trail; then

(8) Proceed northwesterly along Marsh Creek 2.4 miles, crossing onto the Antioch South map, to the creek's intersection with Deer Valley Road; then

(9) Proceed northerly along Deer Valley Road 3.1 miles to its intersection with Chadbourne Road; then

(10) Proceed northwest in a straight line 0.6 mile to the southwestern terminus of Tour Way; then

(11) Proceed northwest in a straight line 3 miles to the intersection of Oil Canyon Trail, Stewartville Trail, and Chadbourne Road; then

(12) Proceed northeasterly along Stewartville Trail 1.9 miles to its intersection with the Contra Loma Trail; then

(13) Proceed northwest in a straight line 2.5 miles to the intersection of Somersville Road and Donlan Boulevard; then

(14) Proceed west-southwest in a straight line 2.5 miles, crossing onto the Clayton map, to the intersection of Nortonville Road and Kirker Pass Road; then

(15) Proceed southwesterly along Kirker Pass Road 5 miles to its intersection with Alberta Way; then

(16) Proceed southwest in a straight line 1.5 miles to the intersection of Buckeye Trail, Blue Oak Trail, and Lime Ridge Trail; then

(17) Proceed south-southeast in a straight line 2.6 miles to the intersection of Arroyo Cerro Del and the 400-foot elevation contour just east of North Gate Road; then

(18) Proceed northwest in a straight line 2.5 miles, crossing onto the Walnut Creek map (2018 edition), to the intersection of Brodia Way and La Casa Via; then

(19) Proceed west-northwest in a straight line, crossing onto the Walnut Creek (1995 edition) map, and continue 3.1 miles on the 1995 edition map to the marked 781-foot peak south of the shared Lafayette-Walnut Creek corporate boundary line and north of an unnamed light-duty road known locally as Peaceful Lane; then

(20) Proceed northwest in a straight line 1.7 miles to the 833-foot peak marked ''Hump 2''; then

(21) Proceed north-northwest 0.5 mile to the water tank (known locally as the Withers Reservoir) at the end of an unnamed light-duty road known locally as Kim Road, in the Cañada del Hambre y Las Bolsas Land Grant; then

(22) Proceed northwest in a straight line 3 miles, crossing onto the Briones Valley map, to the intersection of Alhambra Creek Road and Alhambra Valley Road; then

(23) Proceed northwest in a straight line 4.1 miles, crossing onto the Benicia map, to the intersection of Highway 4 and Cummings Skyway; then

(24) Proceed north-northwest in a straight line 1.8 miles to the intersection of Carquinez Scenic Drive and an unnamed road known locally as Canyon Lake Drive; then

(25) Proceed northeasterly in a straight line 0.6 mile to the marked post office in Port Costa; then

(26) Proceed southeast in a straight line 0.9 mile to the first unnamed road that crosses the railroad tracks and intersects with the shoreline at Little Bull Valley; then

(27) Proceed easterly along the shoreline approximately 38.3 miles, crossing over the Vine Hill, Honker Bay, and Antioch North maps and onto the Jersey Island map to Bethel Island Road; then

(28) Proceed southeast in a straight line 0.7 mile to the intersection of Wells Road and Sandmound Boulevard; then

(29) Proceed northeast in a straight line 2.7 miles, crossing onto the Bouldin Island map and returning to the beginning point.

Signed: March 17, 2023.

Mary G. Ryan,

Administrator.

Approved: March 20, 2023.

Thomas C. West, Jr.,

Deputy Assistant Secretary (Tax Policy).

[FR Doc. 2023–06350 Filed 3–28–23; 8:45 am]

BILLING CODE 4810–31–P

DEPARTMENT OF THE TREASURY

Alcohol and Tobacco Tax and Trade Bureau

27 CFR Part 9

[Docket No. TTB–2023–0003; Notice No. 222]

RIN 1513–AC77

Proposed Establishment of the Comptche Viticultural Area

AGENCY: Alcohol and Tobacco Tax and Trade Bureau, Treasury.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Alcohol and Tobacco Tax and Trade Bureau (TTB) proposes to establish the 1,421.8-acre ''Comptche'' American viticultural area (AVA) in Mendocino County, California. The proposed AVA is located entirely within the boundaries of the existing North Coast AVA, but the petitioner requests excluding the proposed AVA from the North Coast AVA due to significant differences in distinguishing features. TTB designates viticultural areas to allow vintners to better describe the origin of their wines and to allow consumers to better identify wines they may purchase. TTB invites comments on these proposals.

DATES: TTB must receive your comments on or before May 30, 2023.

ADDRESSES: You may electronically submit comments to TTB on this proposal, and view copies of this document, its supporting materials, and any comments TTB receives on it within Docket No. TTB–2023–0003 as posted on *Regulations.gov* (*https://www.regulations.gov*), the Federal e-rulemaking portal. Please see the ''Public Participation'' section of this document below for full details on how to comment on this proposal via *Regulations.gov* or U.S. mail, and for full details on how to obtain copies of this document, its supporting materials, and any comments related to this proposal.

FOR FURTHER INFORMATION CONTACT: Karen A. Thornton, Regulations and Rulings Division, Alcohol and Tobacco Tax and Trade Bureau, 1310 G Street NW, Box 12, Washington, DC 20005; phone 202–453–1039, ext. 175.

SUPPLEMENTARY INFORMATION:

Background on Viticultural Areas

TTB Authority

Section 105(e) of the Federal Alcohol Administration Act (FAA Act), 27 U.S.C. 205(e), authorizes the Secretary of the Treasury to prescribe regulations for the labeling of wine, distilled spirits, and malt beverages. The FAA Act provides that these regulations should, among other things, prohibit consumer deception and the use of misleading statements on labels and ensure that labels provide the consumer with adequate information as to the identity and quality of the product. The Alcohol and Tobacco Tax and Trade Bureau (TTB) administers the FAA Act provisions pursuant to section 1111(d) of the Homeland Security Act of 2002, as codified at 6 U.S.C. 531(d). In addition, the Secretary of the Treasury has delegated certain administrative and enforcement authorities to TTB through Treasury Order 120–01.

Part 4 of the TTB regulations (27 CFR part 4) authorizes TTB to establish definitive viticultural areas and regulate the use of their names as appellations of origin on wine labels and in wine advertisements. Part 9 of the TTB regulations (27 CFR part 9) sets forth standards for the preparation and submission of petitions for the establishment or modification of American viticultural areas (AVAs) and lists the approved AVAs.

Definition

Section 4.25(e)(1)(i) of the TTB regulations (27 CFR 4.25(e)(1)(i)) defines a viticultural area for American wine as a delimited grape-growing region having distinguishing features as described in part 9 of the regulations and, once approved, a name and a delineated boundary codified in part 9 of the regulations. These designations allow vintners and consumers to attribute a given quality, reputation, or other characteristic of a wine made from grapes grown in an area to the wine's geographic origin. The establishment of AVAs allows vintners to describe more accurately the origin of their wines to consumers and helps consumers to identify wines they may purchase. Establishment of an AVA is neither an approval nor an endorsement by TTB of the wine produced in that area.

Requirements

Section 4.25(e)(2) of the TTB regulations (27 CFR 4.25(e)(2)) outlines the procedure for proposing an AVA and allows any interested party to petition TTB to establish a grape-growing region as an AVA. Section 9.12 of the TTB regulations (27 CFR 9.12) prescribes standards for petitions to establish or modify AVAs. Petitions to establish an AVA must include the following:

- Evidence that the area within the proposed AVA boundary is nationally or locally known by the AVA name specified in the petition;
- An explanation of the basis for defining the boundary of the proposed AVA;
- A narrative description of the features of the proposed AVA that affect viticulture, such as climate, geology, soils, physical features, and elevation, that make the proposed AVA distinctive and distinguish it from adjacent areas outside the proposed AVA boundary;
- The appropriate United States Geological Survey (USGS) map(s) showing the location of the proposed AVA, with the boundary of the proposed AVA clearly drawn thereon; and
- A detailed narrative description of the proposed AVA boundary based on USGS map markings.

If a smaller proposed AVA is to be established within an existing AVA, the petitioner may request, and TTB may determine, that the proposed AVA should not be part of the larger AVA because the proposed AVA has features that clearly distinguish it from the

surrounding AVA. In such instances, wine produced from grapes grown within the proposed AVA would not be entitled to use the name of the larger AVA as an appellation of origin or in a brand name if the proposed AVA is established.

Petition To Establish the Comptche AVA

TTB received a petition from Michael Nolan, submitted on behalf of local vineyard owners, proposing to establish the ''Comptche'' AVA. The proposed AVA is located in Mendocino County, California, and covers 1,421.8 acres. There are 3 commercial vineyards covering a total of over 30 acres within the proposed AVA. Although there are no wineries within the proposed AVA, grapes are sold to nearby wineries, including Baxter, Phillips Hill, and Lula.

The distinguishing features of the proposed Comptche AVA are its topography, soils, and climate. The proposed Comptche AVA is located entirely within the boundaries of the existing North Coast AVA (27 CFR 9.30). However, the petition states that the features of the proposed AVA are so distinguishable from those of the North Coast AVA that the proposed AVA should not be included within it.

Proposed Comptche AVA

Name Evidence

The proposed Comptche AVA takes its name from the community of Comptche, California, which is located within the proposed AVA. The Comptche Volunteer Fire Department provides firefighting services for the community. The Comptche Community Organization hosts a variety of events for residents throughout the year, including bingo, senior lunches, and an art show. Children within the proposed AVA attend the Comptche School from kindergarten through fifth grade. The Comptche Store sells food and supplies within the proposed AVA. Finally, the Comptche Directory provides a list of addresses and phone numbers of residents and businesses within the proposed AVA.

Boundary Evidence

The proposed Comptche AVA is located in Mendocino County, California, in a valley surrounded by forests of coastal redwoods and Douglas firs. The proposed northern, eastern, and western boundaries follow the 400-foot elevation contour and separate the valley floor from the higher, steeper, heavily-forested surrounding regions without viticulture. The proposed southern boundary follows the Albion River, which also separates the proposed AVA from the higher, heavily-forested region to the south.

Distinguishing Features

According to the petition, the distinguishing features of the proposed Comptche AVA are its topography, soils, and climate.

Topography

The proposed Comptche AVA is located in a low-elevation valley, a natural opening that is surrounded by heavily forested lands and short, steep ridges. Elevations within the proposed AVA range from 187 to 400 feet, and all vineyards are planted at elevations between 220 and 250 feet. According to the USGS map included with the petition, elevations are higher in each direction outside of the proposed AVA. To the north of the proposed AVA are several marked peaks with elevations of 1,000 feet or higher. To the east of the proposed AVA, elevations rise above 1,200 feet near the community of Cameron, California. South of the proposed AVA, peaks reach over 600 feet near Morrison Gulch. West of the proposed AVA, elevations rise over 800 feet.

The petition also notes that the proposed Comptche AVA is surrounded by land designated as a Timberland Production Zone. Such land is zoned only for the growing and harvesting of timber for a period of at least 10 years from the time it was so designated.[1] The proposed AVA is unique because non-timber-related agricultural activity, including viticulture, is permitted. The petition includes a map showing the extent of the Timberland Production Zones in Mendocino County.[2] The map supports the petition's claim that the proposed Comptche AVA is one of the few regions in the coastal section of Mendocino County that is not set aside for timber production for at least the near future.

According to the petition, the topography of the proposed Comptche AVA has an effect on viticulture. The petition states that above 400 feet the land becomes steeper. As a result, the higher elevations surrounding the proposed AVA are less suited to viticulture than the more level lands on the valley floor of the proposed AVA. The petition also states that the 400-foot elevation contour approximates the change to forest soils that are different from the soil series found within the proposed AVA and are more suited for timber production than viticulture.

Finally, the petition states that elevation affects temperatures. As evidence, the petition included data on the monthly low temperatures from a weather station in the proposed AVA at an elevation of 177 feet, a station to the north of the proposed AVA at an elevation of 525 feet, and a station to the south of the proposed AVA at an elevation of 1,168 feet.[3] The petition noted that high temperatures are very similar in the proposed AVA and on the ridgelines because the sun shines equally on both in the day. Therefore, the petition focused on low, nighttime temperatures, when cold air drains into the proposed AVA from the surrounding higher elevations. Although the petition included data from each month from 2017 through 2019, the petition states that the growing season months are the important months to consider because the vines are dormant the rest of the year. Therefore, the following table only includes data from each growing season, defined in the petition as April through October.[4]

[1] *Californialandcan.org/local-resources/Timberland-Production-Zone/28005.*

[2] You may view the Timber Production Zone map in Appendix 3 of the petition as posted within Docket TTB–2023–0003 at *www.regulations.gov.*

[3] Included in the petition as Table 1; see Docket TTB–2023–0003 at *www.regulations.gov.*

[4] You may view the entire set of temperature data in Appendix 4 of the petition as posted within Docket TTB–2023–0003 at *www.regulations.gov.*

TABLE 1—AVERAGE GROWING SEASON MONTHLY LOW TEMPERATURES IN DEGREES FAHRENHEIT FROM 2017–2019

Month	Location (direction from proposed AVA)		
	Comptche (within)	Huckleberry Hill (north)	Rancho Navarro (south)
2017			
April	32.2	33.1	36.1
May	35.7	38.1	41.9
June	N/A	42.3	45.1
July	44.4	46.0	46.8
August	44.7	47.5	48.6
September	35.8	41.2	46.8
October	27.8	39.2	43.3
2018			
April	32.7	33.6	36.3
May	36.0	37.2	41.5
June	37.1	38.7	44.2
July	41.7	45.1	46.4
August	43.1	46.2	48.6
September	36.9	42.6	47.8
October	31.0	37.4	41.7
2019			
April	34.1	39.0	41.4
May	33.5	37.4	40.8
June	37.8	41.0	N/A
July	43.4	46.2	49.1
August	46.6	50.4	51.1
September	35.9	40.6	42.6
October	26.0	31.3	42.8

The petition states that the low temperatures in the low elevations of the proposed AVA place the proposed AVA at greater risk for frost than the higher elevations. Frost during the growing season can harm vines and delay the development of fruit. The cooler evening growing season temperatures within the proposed AVA can also delay grape maturation.

Soils

The petition states that the proposed Comptche AVA has two main soil types—Bearwallow–Wolfey and Perrygulch Loam. According to the petition, most of the vineyards in the proposed AVA are planted on Bearwallow–Wolfey soils, which are described in the petition as well-drained, shallow, and relatively infertile soils over fractured sandstone. The USDA Soil Survey [5] notes that these soils are primarily used for livestock grazing, wine grape production, and wildlife habitat. These soils are prone to erosion due to their thinness and the fact that they frequently occur on slopes. Therefore, mowing is the preferred method of controlling weeds in the vineyards instead of tilling, which disturbs the soil. Additionally, vineyards planted on these soils are at less of a risk for frost damage than soils planted on the valley floor because cold air drains down the slopes and settles on the valley floor.

Perrygulch Loam is a deep, rich, bottomland soil series that is not as well drained as Bearwallow–Wolfey soils. The soils also contain a large amount of clay. Because these soils are primarily located on the flat valley floor, they are more susceptible to frost than the Bearwallow–Wolfey soils that occur on steeper slopes. The petition states that the vineyard planted on Perrygulch Loam soils has an overhead sprinkler system and catchment pond to help with frost protection, while the vineyards planted on the Bearwallow–Wolfey soils either have no frost protection equipment or occasionally use a simple fan. Vineyards planted on Perrygulch soils also try to avoid soil disturbance, not because the soils are easily eroded but because the high clay content is easily compacted by heavy machinery. As a result, the petition states that the preferred method of weed control in these vineyards is the use of herbicides.

By contrast, the most common soils surrounding the proposed Comptche AVA are Ornbaun and Zeni soils, which are found in each direction outside the proposed AVA. These soils are described in the USDA Soil Survey as occurring on hills and mountains. The soils are moderately deep to deep and formed from sandstone, and the surface is typically covered with a mat of leaves and twigs that is one-half inch deep. The USDA Soil Survey notes that these soils are used for timber production or as a watershed.

Climate

The petition to establish the proposed Comptche AVA included climate data from within the proposed AVA and from three established AVAs in Mendocino County: The Mendocino AVA (27 CFR 9.93), which forms a ''V'' shape to the east and south of the proposed AVA, and the Mendocino Ridge AVA (27 CFR 9.158) and Anderson Valley AVA (27 CFR 9.86),

[5] Included in Appendix 2 of the petition, which is posted within Docket TTB–2023–0003 at *www.regulations.gov*.

which are both to the south of the proposed AVA.[6] The following table summarize the average growing season and average annual temperatures. Data was not included for the regions to the north or west of the proposed Comptche AVA.

TABLE 2—AVERAGE GROWING SEASON[7] AND ANNUAL TEMPERATURES

[Degrees fahrenheit]

Location	Average growing season temperature	Average annual temperature
Proposed Comptche AVA	74.2	67.9
Mendocino AVA	80.4	71.0
Mendocino Ridge AVA	76.1	68.2
Anderson Valley AVA	78.2	70.1

The petition also included data from three additional ways of measuring the climate of a region. The first method is growing degree days (GDDs), also known as the Winkler Index.[8] The following table summarizes the average annual GDD accumulations from the same locations as used in the previous table.

TABLE 3—AVERAGE ANNUAL GDD ACCUMULATIONS

Location	GDD accumulations
Proposed Comptche AVA	2,258.85
Mendocino AVA	3,034.06
Mendocino Ridge AVA	2,680.08
Anderson Valley AVA	2,738.92

The second system of measuring climate is the Huglin Index. According to the petition, this method uses the period from April 1 through September 30 and sums the mean of the daily mean temperatures above 10 degrees Celsius, multiplied by a coefficient indicative of the latitude to account for increasing day lengths. The following table summarizes the Huglin Index numbers for the same locations as used in the previous table.

TABLE 4—HUGLIN INDEX

Location	Huglin Index
Proposed Comptche AVA	1,835.81
Mendocino AVA	2,399.82
Mendocino Ridge AVA	2,051.0
Anderson Valley AVA	2,185.79

The final system of measuring climate is called Biologically Effective Degree Days (BEDD). The BEDD method calculates the growing degree days between April 1 and October 31 and also accounts for day length and diurnal temperature range. The following table summarizes the BEDD accumulations for the same locations as used in the previous table.

TABLE 5—BEDD ACCUMULATIONS

Location	BEDD accumulations
Proposed Comptche AVA	1,395.05
Mendocino AVA	1,805.09
Mendocino Ridge AVA	1,543.05
Anderson Valley AVA	1,699.14

The climate data included in the petition shows that the proposed Comptche AVA has lower GDD and BEDD accumulations and a lower Huglin Index number than the regions to the south and east, suggesting a significantly cooler climate within the proposed AVA. The petition states that the proposed AVA is a ''borderline'' region for growing wine grapes, and that only the most cold-hardy varietals will successfully ripen. Pinot Noir is the only grape varietal currently grown commercially within the proposed Comptche AVA.

Summary of Distinguishing Features

The following table summarizes the characteristics of the proposed Comptche AVA and the surrounding regions.

TABLE 6—SUMMARY OF DISTINGUISHING FEATURES

Location	Topography	Soils	Climate
Proposed Comptche AVA.	Low elevation, naturally-open valley; elevations between 187 and 400 feet; not designated as a Timberland Production Zone.	Bearwallow–Wolfey and Perrygulch Loam; generally well-drained, shallow, relatively fertile; prone to erosion.	Average growing season monthly low temperatures range from 26 to 46.6 degrees F; 2,258.85 GDDs; Huglin Index 1,835.81; 1,495.05 BEDDs.
North	Heavily forested; elevations reach 1,000 feet and higher; designated as Timberland Production Zone.	Ornbaun and Zeni; moderately deep and typically covered with a mat of leaves and twigs.	Average growing season monthly low temperatures range from 31.3 to 50.4 degrees F.
East	Elevations reach 1,200 feet and higher; designated as Timberland Production Zone.	Ornbaun and Zeni; moderately deep and typically covered with a mat of leaves and twigs.	Mendocino AVA: Average growing season temperature 80.4 degrees F, annual temperature 71 degrees F; 3,034.06 GDDs; Huglin Index 2,399.82; 1,805.09 BEDDs.

[6] Included as Table 2 in the petition, which is posted within Docket TTB–2023–0003 at *www.regulations.gov.*

[7] Defined in the petition as the period from April through October.

[8] *See* Albert J. Winkler et al., *General Viticulture* (Berkeley: University of California Press, 2nd ed. 1974), pages 61–64. In the Winkler climate classification system, annual heat accumulation during the growing season, measured in annual GDDs, defines climatic regions. One GDD accumulates for each degree Fahrenheit that a day's mean temperature is above 50 degrees F, the minimum temperature required for grapevine growth.

TABLE 6—SUMMARY OF DISTINGUISHING FEATURES—Continued

Location	Topography	Soils	Climate
South	Elevations reach over 600 feet; designated as Timberland Production Zone.	Ornbaun and Zeni; moderately deep and typically covered with a mat of leaves and twigs.	Average growing season monthly low temperatures range from 36.1 to 51.1 degrees F; in Mendocino Ridge AVA: average growing season temperature 76.1 degrees F, average annual temperature 68.2 degrees F, 2,680.08 GDDs, Huglin Index 2,051, 1,543.05 BEDDs; in Anderson Valley AVA: average growing season 78.2 degrees F, average annual temperature 70.1 degrees F, 2,738.92 GDDs, Huglin Index 2,185.79, 1,699.14 BEDDs.
West	Elevations rise over 800 feet; designated as Timberland Production Zone.	Ornbaun and Zeni; moderately deep and typically covered with a mat of leaves and twigs.	Not Available.

Comparison of the Proposed Comptche AVA to the Existing North Coast AVA

The North Coast AVA was established by T.D. ATF–145, published in the **Federal Register** on September 21, 1983 (48 FR 42973). It includes all or portions of Napa, Sonoma, Mendocino, Lake, Marin, and Solano Counties, California. According to T.D. ATF–145, the North Coast AVA is characterized by a marine-influenced climate that can be classified as Regions I–III on the Winkler Index. T.D. ATF–145 did not include any information on the soils of the North Coast AVA.

Comparison of Climate

Although the proposed Comptche AVA also has a marine-influenced climate, the petition states that the climate and soils of the proposed AVA are so different from the North Coast AVA that the proposed AVA should not be considered a part of the larger AVA. The petition describes the climate of the proposed AVA as suitable for growing only the most cold-hardy wine grapes. The petition for the proposed Comptche AVA included climate date from within the proposed AVA and from the North Coast AVA, as a whole.[9] The information is summarized in the following table.

TABLE 7—CLIMATE COMPARISON OF NORTH COAST AVA AND PROPOSED COMPTCHE AVA

Location	BEDDs	GDDs	Huglin Index	Average growing season temperature (degrees F)	Average annual temperature (degrees F)
Proposed Comptche AVA	1,395.05	2,258.85	1,835.81	74.2	67.9
North Coast AVA	1,798.84	3,080.43	2,342.98	79.6	71.4

The data in the table suggest that the climate of the proposed Comptche AVA is cooler than that of the larger, multi-county North Coast AVA as a whole. The GDD accumulations for the proposed AVA indicate it is a Region I climate, whereas the North Coast AVA's GDD accumulations indicate the AVA, as a whole, is a Region III climate.[10] T.D. ATF–145 notes that variations in climate exist within the North Coast AVA due to its large size. However, the proposed Comptche AVA is not just cooler than locations in other counties within the North Coast AVA, but it is also cooler than its three closest neighboring AVAs in Mendocino County—the Mendocino, Mendocino Ridge, and Anderson Valley AVAs.[11] Therefore, the petition lists climate as one of the reasons to exclude the proposed Comptche AVA from the established North Coast AVA.

Comparison of Soil

T.D. ATF–145, which established the North Coast AVA, did not include information about the AVA's soils. The proposed Comptche AVA petition states that the primary soils in the proposed AVA are the Bearwallow–Wolfey and Perrygulch Loam series. According to the petition, these soil series have a limited extent in California: the Bearwallow series covers a total of 30,050 acres, the Wolfey series covers 4,709 acres, and the Perrygulch series covers 580 acres. By comparison, the Zeni and Ornbaun series, which are the most prominent soils in the regions directly outside the proposed AVA, cover 96,612 and 115,774 acres, respectively. T.D. ATF–145 notes that the entire North Coast AVA covers slightly more than 3 million acres. The petition states that the uniqueness of the primary soils of the proposed Comptche AVA is another reason the proposed AVA should not be considered a part of the North Coast AVA.

TTB Determination

TTB concludes that the petition to establish the 1,421.8-acre ''Comptche'' AVA merits consideration and public comment, as invited in this document.

Boundary Description

See the narrative boundary descriptions of the petitioned-for AVA in the proposed regulatory text published at the end of this document.

Maps

The petitioner provided the required maps, and they are listed below in the proposed regulatory text. You may also view the proposed Comptche AVA boundary on the AVA Map Explorer on the TTB website, at *https://www.ttb.gov/wine/ava-map-explorer.*

[9] Included as Table 2 in the petition, which is posted within Docket TTB–2023–0003 at *www.regulations.gov*.

[10] See Albert J. Winkler et al., *General Viticulture* (Berkeley: University of California Press, 2nd. ed. 1974), pages 61–64. In the Winkler scale, the GDD regions are defined as follows: Region I = less than 2,500 GDDs; Region II = 2,501–3,000 GDDs; Region III = 3,001–3,500 GDDs; Region IV = 3,501–4,000 GDDs; Region V = greater than 4,000 GDDs.

[11] See Tables 3, 4, and 5 in the Climate section of this proposed rule.

Impact on Current Wine Labels

Part 4 of the TTB regulations prohibits any label reference on a wine that indicates or implies an origin other than the wine's true place of origin. For a wine to be labeled with an AVA name or with a brand name that includes an AVA name, at least 85 percent of the wine must be derived from grapes grown within the area represented by that name, and the wine must meet the other conditions listed in 27 CFR 4.25(e)(3). If the wine is not eligible for labeling with an AVA name and that name appears in the brand name, then the label is not in compliance and the bottler must change the brand name and obtain approval of a new label. Similarly, if the AVA name appears in another reference on the label in a misleading manner, the bottler would have to obtain approval of a new label. Different rules apply if a wine has a brand name containing an AVA name that was used as a brand name on a label approved before July 7, 1986. See 27 CFR 4.39(i)(2) for details.

If TTB establishes this proposed AVA, its name, ''Comptche,'' will be recognized as a name of viticultural significance under § 4.39(i)(3) of the TTB regulations (27 CFR 4.39(i)(3)). The text of the proposed regulation clarifies this point. Consequently, wine bottlers using ''Comptche'' in a brand name, including a trademark, or in another label reference as to the origin of the wine, would have to ensure that the product is eligible to use the viticultural area's name ''Comptche.''

If the proposed Comptche AVA is excluded from the established North Coast AVA, grapes grown in the Comptche AVA would not count towards the percentage requirement for wines labeled as ''North Coast.'' Vintners would be able to use ''Comptche,'' and only that term, as an AVA appellation of origin, if at least 85 percent of the wine is derived from grapes grown in the Comptche AVA, and if the wine meets the other eligibility requirements for the appellation. Alternatively, vintners could use ''California'' or ''Mendocino County'' as non-AVA appellations of origin.

Public Participation

Comments Invited

TTB invites comments from interested members of the public on whether TTB should establish the proposed Comptche AVA. TTB is interested in receiving comments on the sufficiency and accuracy of the name, boundary, and other required information submitted in support of the AVA petition. In addition, because the proposed Comptche AVA would not be considered part of the existing North Coast AVA, TTB is interested in comments on whether the evidence submitted in the petition regarding the distinguishing features of the proposed AVA sufficiently demonstrate that its geographic features are so distinguishable from the North Coast AVA that the proposed Comptche AVA should not be part of the established AVA. Please provide any available specific information in support of your comments.

Because of the potential impact of the establishment of the proposed Comptche AVA on wine labels that include the term ''Comptche,'' as discussed in the Impact on Current Wine Labels section, TTB is particularly interested in comments regarding whether there will be a conflict between the proposed area names and currently used brand names. If a commenter believes that a conflict will arise, the comment should describe the nature of that conflict, including any anticipated negative economic impact that approval of the proposed AVA will have on an existing viticultural enterprise. TTB is also interested in receiving suggestions for ways to avoid conflicts, for example, by adopting a modified or different name for the proposed AVA.

Submitting Comments

You may submit comments on this proposal by using one of the following methods:

- *Federal e-Rulemaking Portal:* You may send comments via the online comment form posted with this document within Docket No. TTB–2023–0003 on ''*Regulations.gov*,'' the Federal e-rulemaking portal, at *https://www.regulations.gov.* A direct link to that docket is available under Notice No. 222 on the TTB website at *https://www.ttb.gov/wine/wine-rulemaking.shtml.* Supplemental files may be attached to comments submitted via *Regulations.gov*. For complete instructions on how to use *Regulations.gov*, visit the site and click on the ''Help'' tab at the top of the page.
- *U.S. Mail:* You may send comments via postal mail to the Director, Regulations and Rulings Division, Alcohol and Tobacco Tax and Trade Bureau, 1310 G Street NW, Box 12, Washington, DC 20005.

Please submit your comments by the closing date shown above in this document. Your comments must reference Notice No. 222 and include your name and mailing address. Your comments also must be made in English, be legible, and be written in language acceptable for public disclosure. We do not acknowledge receipt of comments, and we consider all comments as originals.

Your comment must clearly state if you are commenting on your own behalf or on behalf of an organization, business, or other entity. If you are commenting on behalf of an organization, business, or other entity, your comment must include the entity's name as well as your name and position title. If you comment via *Regulations.gov*, please enter the entity's name in the ''Organization'' blank of the online comment form. If you comment via postal mail, please submit your entity's comment on letterhead.

You may also write to the Administrator before the comment closing date to ask for a public hearing. The Administrator reserves the right to determine whether to hold a public hearing.

Confidentiality

All submitted comments and attachments are part of the public record and subject to disclosure. Do not enclose any material in your comments that you consider to be confidential or inappropriate for public disclosure.

Public Disclosure

TTB will post, and you may view, copies of this document, selected supporting materials, and any online or mailed comments received about this proposal within Docket No. TTB–2023–0003 on the Federal e-rulemaking portal, *Regulations.gov,* at *https://www.regulations.gov.* A direct link to that docket is available on the TTB website at *https://www.ttb.gov/wine/wine-rulemaking.shtml* under Notice No. 222. You may also reach the relevant docket through the *Regulations.gov* search page at *https://www.regulations.gov.* For instructions on how to use *Regulations.gov,* visit the site and click on the ''Help'' tab at the top of the page.

All posted comments will display the commenter's name, organization (if any), city, and State, and, in the case of mailed comments, all address information, including email addresses. TTB may omit voluminous attachments or material that it considers unsuitable for posting.

You may also obtain copies of this proposed rule, all related petitions, maps and other supporting materials, and any electronic or mailed comments that TTB receives about this proposal at 20 cents per 8.5- x 11-inch page. Please note that TTB is unable to provide copies of USGS maps or any similarly-

sized documents that may be included as part of the AVA petition. Contact TTB's Regulations and Rulings Division by email using the web form at *https://www.ttb.gov/contact-rrd,* or by telephone at 202–453–1039, ext. 175, to request copies of comments or other materials.

Regulatory Flexibility Act

TTB certifies that this proposed regulation, if adopted, would not have a significant economic impact on a substantial number of small entities. The proposed regulation imposes no new reporting, recordkeeping, or other administrative requirement. Any benefit derived from the use of a viticultural area name would be the result of a proprietor's efforts and consumer acceptance of wines from that area. Therefore, no regulatory flexibility analysis is required.

Executive Order 12866

This proposed rule is not a significant regulatory action as defined by Executive Order 12866. Therefore, it requires no regulatory assessment.

List of Subjects in 27 CFR Part 9

Wine.

Proposed Regulatory Amendment

For the reasons discussed in the preamble, we propose to amend title 27, chapter I, part 9, Code of Federal Regulations, as follows:

PART 9—AMERICAN VITICULTURAL AREAS

■ 1. The authority citation for part 9 continues to read as follows:

Authority: 27 U.S.C. 205.

Subpart C—Approved American Viticultural Areas

■ 2. Add § 9.____ to read as follows:

§ 9.____ Comptche.

(a) *Name.* The name of the viticultural area described in this section is ''Comptche''. For purposes of part 4 of this chapter, ''Comptche'' is a term of viticultural significance.

(b) *Approved maps.* The one United States Geological Survey (USGS) 1:24,000 scale topographic map used to determine the boundary of the viticultural area is titled Comptche, California (provisional edition 1991).

(c) *Boundary.* The Comptche viticultural area is located in Mendocino County, California. The boundary of the Comptche viticultural area is as described as follows:

(1) The beginning point is on the Comptche map at the intersection of a north-south tributary of the Albion River and an unnamed improved road known locally as Comptche Ukiah Road, section 12, T16N/R16W. From the beginning point, proceed northwest in a straight line, crossing an unnamed, unimproved road known locally as Surprise Valley Road, to the 400-foot elevation contour, section 12, T16N/R16W; then

(2) Proceed north, then easterly along the 400-foot elevation contour to its intersection with an unnamed, unimproved road southeast of the marked 517-foot peak in section 1, T16N/R16W; then

(3) Proceed southeasterly along the unnamed, unimproved road to its intersection with an unnamed, unimproved road known locally as Surprise Valley Road, section 1, T16N/R16W; then

(4) Proceed northeasterly along Surprise Valley Road to its intersection with an unnamed, unimproved road known locally as North Fork Road, section 1, T16N/R16 W; then

(5) Proceed northwesterly along North Fork Road to its intersection with an unnamed, unimproved road known locally as Docker Hill Road in section 36, T17N/R16W; then

(6) Proceed north along Docker Hill Road to its intersection with the 400-foot elevation contour, section 36, T17N/R16W; then

(7) Proceed easterly along the 400-foot elevation contour to its intersection with the North Fork of the Albion River in section 37, T17N/R15W; then

(8) Continue in a generally southerly direction along the 400-foot elevation contour to its intersection with an unnamed intermittent creek in section 6, T16N/R15W; then

(9) Proceed south in a straight line to the 400-foot elevation contour, section 6, T16N/R15W; then

(10) Proceed southeasterly, then north, then southeasterly along the meandering 400-foot elevation contour to its intersection with the Albion River in section 8, T16N/R15W; then

(11) Proceed westerly along the Albion River to its intersection with a north-south tributary in section 12, T16N/R16W; then

(12) Proceed northeasterly along the tributary, returning to the beginning point.

(d) *Exclusion.* The Comptche viticultural area as described in this section is not included within the North Coast viticultural area as described in § 9.30.

Signed: March 17, 2023.

Mary G. Ryan,

Administrator.

Approved: March 20, 2023.

Thomas C. West, Jr.,

Deputy Assistant Secretary (Tax Policy).

[FR Doc. 2023–06349 Filed 3–28–23; 8:45 am]

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DEPARTMENT OF JUSTICE

28 CFR Parts 0 and 27

[Docket No. JMD 154; AG Order No. 5618–2023]

RIN 1105–AB47

Whistleblower Protection for Federal Bureau of Investigation Employees

AGENCY: Department of Justice.

ACTION: Notice of proposed rulemaking; request for comments.

SUMMARY: The Department of Justice (''Department'') proposes to update its regulations on the protection of whistleblowers in the Federal Bureau of Investigation (''FBI''). This update reflects changes resulting from an assessment conducted by the Department in response to Presidential Policy Directive-19 of October 10, 2012, ''Protecting Whistleblowers with Access to Classified Information'' (''PPD–19''), and the Federal Bureau of Investigation Whistleblower Protection Enhancement Act of 2016 (''FBI WPEA of 2016''). The proposed changes include updating the description of protected whistleblower disclosures and covered personnel actions to conform to the FBI WPEA of 2016; providing for more equal access to witnesses; and specifying that compensatory damages may be awarded as appropriate. The proposed changes also include new provisions to formalize practices that have been implemented informally, including providing for the use of acknowledgement and show-cause orders, providing access to alternative dispute resolution through the Department's FBI Whistleblower Mediation Program, clarifying the authority to adjudicate allegations of a breach of a settlement agreement, and reporting information about those responsible for unlawful reprisals. The proposed regulation reiterates that the determinations by the Director of the Office of Attorney Recruitment and Management (''OARM'') must be independent and impartial. Finally, through this proposed rule, the Department is inviting specific comments on and recommendations for

how the Department might further revise the regulations to increase fairness, effectiveness, efficiency, and transparency, including to provide enhanced protections for whistleblowers, in addition to the proposed changes identified above.

DATES: Written comments and related material must be postmarked, and other comments and related material must be submitted, on or before May 30, 2023. You should be aware that the Federal eRulemaking Portal will accept comments submitted prior to midnight Eastern Time on the last day of the comment period.

ADDRESSES: You should submit comments identified by docket number using any one of the following methods:

(1) *Federal eRulemaking Portal: http://www.regulations.gov;*

(2) *Mail or Delivery:* Morton J. Posner, General Counsel, Justice Management Division, U.S. Department of Justice, 145 N St. NE, Suite 8E.500, Washington, DC 20530.

FOR FURTHER INFORMATION CONTACT: Morton J. Posner, General Counsel, Justice Management Division, telephone 202–514–34; or Hilary S. Delaney, Assistant Director, Office of Attorney Recruitment and Management, telephone 202–532–3188; email: *Morton.J.Posner@usdoj.gov* or *Hilary.S.Delaney@usdoj.gov.*

SUPPLEMENTARY INFORMATION:

I. Public Participation and Request for Comments

We encourage you to participate in this rulemaking by submitting comments and related materials, if any. All comments received will be posted without change to *http://www.regulations.gov* and will include any personal information you have provided.

A. Submitting Comments

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. You may submit your comments and material online at *http://www.regulations.gov* or by email, mail, or hand delivery, but please use only one of these means. If you submit a comment online, it will be considered received by the Department when you successfully transmit the comment. The Department recommends that you include your name and a mailing address, an email address, or a telephone number in the body of your document.

To submit your comment online, go to *http://www.regulations.gov,* type the docket number ''JMD 154'' in the ''SEARCH'' box, and click ''SEARCH.'' Click on ''Submit a Comment'' on the line associated with this rulemaking.

B. Posting of Public Comments

Please note that all comments received are considered part of the public record and made available for public inspection online at *http://www.regulations.gov.* Such information includes personal identifying information (such as your name and address) that you voluntarily submit, unless the process described below is followed.

You are not required to submit personal identifying information in order to comment on this rule. Nevertheless, if you want to submit personal identifying information (such as your name and address) as part of your comment, but do not want it to be posted online, you must include the phrase ''PERSONAL IDENTIFYING INFORMATION'' in the first paragraph of your comment. You also must place all the personal identifying information you do not want posted online in the first paragraph of your comment and identify what information you want redacted.

If you want to submit confidential business information as part of your comment but do not want it to be posted online, you must include the phrase ''CONFIDENTIAL BUSINESS INFORMATION'' in the first paragraph of your comment. You also must prominently identify confidential business information to be redacted within the comment. If a comment has so much confidential business information that it cannot be effectively redacted, the Department may make the determination not to post all or part of that comment on *http://www.regulations.gov.*

Personal identifying information and confidential business information identified and located as set forth above will be placed in the agency's public docket file but not posted online. If you wish to inspect the agency's public docket file in person by appointment, please see the paragraph above entitled **FOR FURTHER INFORMATION CONTACT.**

C. Viewing Comments and Documents

To view comments, go to *http://www.regulations.gov,* type the docket number ''JMD–154'' in the ''SEARCH'' box, and click ''SEARCH.'' Click on ''Open Docket Folder'' on the line associated with this rulemaking.

D. Privacy Act

Anyone can search the electronic form of comments received into any of our dockets by the name of the individual submitting the comment (or the individual signing the comment if comments are submitted on behalf of an association, business, labor union, etc.).

II. Executive Summary

On November 1, 1999, the Department issued a final rule entitled ''Whistleblower Protection For Federal Bureau of Investigation Employees,'' published in the **Federal Register** at 64 FR 58782, establishing procedures under which (1) FBI employees or applicants for employment with the FBI may make disclosures of information protected by the Civil Service Reform Act of 1978, Public Law 95–454 (''CSRA''), and the Whistleblower Protection Act of 1989 (''WPA''), Public Law 101–12; and (2) the Department will investigate allegations by FBI employees and applicants for employment of reprisal for making such protected disclosures and take appropriate corrective action. The rule is codified at 28 CFR part 27.

On January 9, 2008, the Department updated part 27 as well as 28 CFR 0.29d primarily to conform to organizational changes brought about by a restructuring of relevant offices of the FBI. Technical Amendments to the Regulations Providing Whistleblower Protection for Federal Bureau of Investigation Employees, 73 FR 1493.

On October 10, 2012, President Barack Obama issued PPD–19, which, in part, directed that the Department prepare a report that (1) assesses the efficacy of the Department's FBI whistleblower protection regulations found in 28 CFR part 27 in deterring the personnel practices prohibited in 5 U.S.C. 2303, and in ensuring appropriate enforcement of section 2303, and (2) describes any proposed revisions to those regulations that would increase their effectiveness in fulfilling the purposes of section 2303. PPD–19 at 5.

In response to this directive, the Office of the Deputy Attorney General conducted a comprehensive review of the Department's whistleblower regulations and historical experience with their operation.[1] As part of that process, the Department formed a working group, seeking participation from the other key participants in

[1] On November 27, 2012, President Obama signed the Whistleblower Protection Enhancement Act of 2012, Public Law 112–199, (''WPEA of 2012''). The Department considered the WPEA of 2012 as part of its PPD–19 review.

administering the Department's FBI whistleblower regulations—the FBI, OARM, the Office of the Inspector General, and the Office of Professional Responsibility—as well as the Justice Management Division. In addition, the Department consulted with the Office of Special Counsel (''OSC'') and FBI employees, as required by PPD–19. The Department also consulted with representatives of non-governmental organizations that support whistleblowers' rights and with private counsel for whistleblowers (collectively, whistleblower advocates).[2]

With respect to consultation with FBI employees, the FBI's representatives on the Department's working group consulted with various FBI entities: the Ombudsman; the Office of Equal Employment Opportunity Affairs; the Office of Integrity and Compliance; the Office of Professional Responsibility; the Human Resources Division; and the Inspection Division. The representatives also solicited the views of each of the FBI's three official advisory committees that represent FBI employees—the All-Employees Advisory Committee, the Agents Committee, and the Middle-Management Committee.

In April 2014, after completion of the PPD–19 review, the Department issued a report, ''Department of Justice Report on Regulations Protecting FBI Whistleblowers'' (''PPD–19 Report''). (A copy of this report is available at *www.regulations.gov* in connection with this rulemaking, or as provided above under the heading **FOR FURTHER INFORMATION CONTACT**.) The report considered the historical context of the Department's efforts to protect FBI whistleblowers from reprisal and the Department's current policies and procedures for adjudicating claims of reprisal against FBI whistleblowers; summarized and analyzed statistics regarding the use of these policies and procedures in recent years; and identified desired changes to existing policies and procedures as a result of this assessment.

The Department's proposed rule reflects the PPD–19 Report's findings and recommendations, as modified to comply with the FBI WPEA of 2016, discussed in further detail below in this preamble, which President Obama signed on December 16, 2016. In addition, through this notice of proposed rulemaking, the Department is inviting specific comments on and recommendations for how the Department might further revise the regulations to increase fairness, effectiveness, efficiency, and transparency, including to provide enhanced protections for whistleblowers.

[2] The Department convened a meeting with the following whistleblower advocate organizations: Project on Government Oversight; Kohn, Kohn & Colapinto; Government Accountability Project; American Civil Liberties Union; and a former chief counsel to the chairman of the Merit Systems Protection Board.

III. Historical Background on FBI Whistleblower Protection

Legislative protection of civilian Federal whistleblowers from reprisal began in 1978 with passage of the CSRA, and was expanded by the WPA and the WPEA of 2012. Currently, Federal employees fall into three categories. Most civilian Federal employees are fully covered by the statutory regime established by the CSRA, which permits them to challenge alleged reprisals through the OSC and the Merit Systems Protection Board (''MSPB''). By contrast, some Federal agencies that deal with intelligence are expressly excluded from the whistleblower protection scheme established by these statutes.

The FBI is in an intermediate position: Although it is one of the agencies expressly excluded from the scheme established for Federal employees generally, its employees nevertheless are protected by a separate statutory provision and special regulations promulgated pursuant to that provision, which forbid reprisals against FBI whistleblowers and provide an administrative remedy within the Department. *See* 28 CFR part 27.

To elaborate, the CSRA sets forth ''prohibited personnel practices,'' which are a range of personnel actions that the Federal Government may not take against Federal employees. One such prohibited personnel practice is retaliating against an employee for revealing certain agency information. Specifically, the CSRA originally made it illegal for an agency to take or fail to take a personnel action with respect to any employee or applicant for employment as a reprisal for disclosure of information that the employee or applicant reasonably believed evidenced a violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety. Public Law 95–454, sec. 101(a), codified at 5 U.S.C. 2302(b)(8). The CSRA also created the MSPB and OSC to enforce the prohibitions on specified personnel practices.

The CSRA, however, expressly excluded from this scheme the FBI, the Central Intelligence Agency, various intelligence elements of the Department of Defense, and any other executive agency or unit thereof as determined by the President with the principal function of conducting foreign intelligence or counterintelligence activities. Public Law 95–454, sec. 101(a), codified at 5 U.S.C. 2302(a)(2)(C)(ii).

For the FBI alone, the CSRA specifically prohibited taking a personnel action against employees or applicants for employment as a reprisal for disclosing information that the employee or applicant reasonably believed evidenced a violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety. *Id.,* codified at 5 U.S.C. 2303(a)(1), (2). The CSRA defined a ''personnel action'' for the purpose of the FBI-specific prohibition as any action specifically described in clauses (i) through (x) of 5 U.S.C. 2302(a)(2)(A), taken with respect to an employee in—or an applicant for—a position other than one of a confidential, policy-determining, policymaking, or policy-advocating character. *Id.,* codified at 5 U.S.C. 2303(a). In addition, the CSRA limited the protection of the FBI-specific prohibition to only those disclosures that the FBI employee made through narrowly defined internal channels—*i.e.,* to the Attorney General or the Attorney General's designee. *Id.* Finally, the CSRA directed the President to provide for the enforcement of the provision relating to FBI whistleblowers in a manner consistent with applicable provisions of 5 U.S.C. 1206, the section of the CSRA that originally set out the responsibilities of the OSC, the MSPB, and agency heads in response to a whistleblower complaint and provided for various remedies. *Id.,* codified at 5 U.S.C. 2303(c).

In April 1980, the Department published a final rule implementing section 2303. The rule provided, among other things, for a stay of any personnel action if there were reasonable grounds to believe that the personnel action was taken, or was to be taken, as a reprisal for a disclosure of information by the employee to the Attorney General or the Attorney General's designee that the employee reasonably believed evidenced wrongdoing covered by section 2303. Office of Professional Responsibility; Protection of Department of Justice Whistleblowers, 45 FR 27754, 27755 (Apr. 24, 1980).

In 1989, the statutory scheme for most civilian employees changed in some respects when Congress passed the WPA, which significantly expanded the avenues of redress generally available to

civilian Federal employees. In doing so, it replaced section 1206 with sections 1214 and 1221; these new sections set forth the procedures under which OSC would investigate prohibited personnel practices and recommend or seek corrective action, and the circumstances under which an individual right of action before the MSPB would be available. Public Law 101–12, sec. 3. Consistent with this change, the WPA amended section 2303, governing FBI whistleblowers, to replace the requirement that enforcement of whistleblower protections be consistent with applicable provisions of section 1206 with a requirement that enforcement be consistent with applicable provisions of newly-added sections 1214 and 1221. Public Law 101–12, sec. 9(a)(1).

The WPA also amended the regime generally applicable to civil service employees by revising section 2302 to protect only disclosures of information the employee reasonably believes evidences ''gross mismanagement,'' rather than ''mismanagement,'' as originally provided by the CSRA. Pub. L. 101–12, sec. 4(a). However, the WPA did not make a corresponding change to section 2303, the statute applicable to FBI whistleblowers.

On April 14, 1997, President William J. Clinton issued a memorandum delegating to the Attorney General the functions concerning employees of the FBI vested in the President by the CSRA, and directing the Attorney General to establish appropriate processes within the Department to carry out these functions. Delegation of Responsibilities Concerning FBI Employees Under the Civil Service Reform Act of 1978, 62 FR 23123 (Apr. 28, 1997). In November 1999, the Department published a final rule establishing procedures under which FBI employees or applicants for employment may make disclosures of wrongdoing. 64 FR 58782 (Nov. 1, 1991). The rule created a remedial scheme within the Department through which FBI employees can seek redress when they believe they have suffered reprisal for making a protected disclosure. Subject to minor amendments in 2001 and 2008, the rule, codified at 28 CFR part 27, remains in force.

On November 27, 2012, the month following President Obama's issuance of PPD–19, he signed the WPEA of 2012 into law. That act, among other things, amended 5 U.S.C. 1214 and 5 U.S.C. 1221 to authorize awards of compensatory damages. Although the FBI is expressly excluded from coverage under these statutory provisions and is instead covered by 5 U.S.C. 2303, section 2303 directs that the President ensure enforcement of section 2303 in a ''manner consistent with the applicable provisions of sections 1214 and 1221.'' 5 U.S.C. 2303(c). The WPEA of 2012 also expanded the number of prohibited personnel actions set out in section 2302(a)(2), but made no corresponding change to the cross-reference in section 2303(a). Accordingly, the Department has considered the WPEA of 2012's changes to sections 1214, 1221, and 2302(a) and their impact on the FBI's whistleblower protection program under section 2303 and has concluded that corresponding technical amendments to the current regulations are appropriate, as described further below.

On December 16, 2016, President Obama signed Public Law 114–302, the FBI WPEA of 2016. That statute made two changes to the statutory whistleblower protection scheme applicable to FBI employees. First, it expanded the list of recipients set forth in 5 U.S.C. 2303(a) to whom a disclosure could be made to be protected (assuming the substantive requirements are met). Protected disclosures now may be made to an employee's supervisor in the employee's direct chain of command, up to and including the Attorney General; the Inspector General; the Department's Office of Professional Responsibility; the FBI Office of Professional Responsibility; the FBI Inspection Division; Congress, as described in 5 U.S.C. 7211; OSC; or an employee designated to receive such disclosures by any officer, employee, office, or division of the listed entities. *See* Public Law 114–302, sec. 2.

Second, the FBI WPEA of 2016 changed the substantive requirement for a protected disclosure, requiring that the disclosure be one that the discloser reasonably believes evidences *any* violation (previously, ''a violation'') of any law, rule, or regulation, or *gross* mismanagement (previously, just ''mismanagement''), in addition to the previous (and unchanged) provision for disclosures of a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety. *Id.*

And most recently, Public Law 117–263, the James M. Inhofe National Defense Authorization Act for Fiscal Year 2023, amended section 2303, specifically allowing FBI employees to appeal a final determination or corrective action order to the MSPB pursuant to section 1221. *See* Public Law 117–263, sec. 5304(a), codified at 5 U.S.C. 2303(d).

The changes contemplated by this proposed rule are intended to (1) improve, pursuant to PPD–19 and consistent with the Department's recommendations in the PPD–19 Report, the internal investigation and adjudication of whistleblower retaliation claims by FBI employees and applicants for employment under the remedial scheme initially established in 1999 and codified at 28 CFR parts 0 and 27; and (2) ensure that this process is consistent with changes enacted by the WPEA of 2012 and the FBI WPEA of 2016.

Finally, through this notice of proposed rulemaking, the Department is inviting specific comments on and recommendations for how the Department might further revise the regulations to increase fairness, effectiveness, efficiency, and transparency, including to provide enhanced protections for whistleblowers, in addition to the proposed changes.

IV. Proposed Changes in This Rule

A. Revising the Description of a Protected Disclosure in Part 0.29d To Conform to the Requirements of the FBI WPEA of 2016

The Department proposes amendments to 28 CFR 0.29d to conform to the substantive requirements of a protected disclosure found in 5 U.S.C. 2303(a)(2)(A) and (B), as amended by the FBI WPEA of 2016. Specifically, the Department proposes that, in the first sentence of 28 CFR 0.29d(a), the phrase ''a violation of any law, rule, or regulation, or mismanagement'' be changed to ''any violation of any law, rule, or regulation, or gross mismanagement'' to conform to the statutory text. The Department invites comments on this proposed change.

B. Proposed Changes to Part 27

1. Expanding the Definition of Persons to Whom a Protected Disclosure Must Be Made To Conform to the Requirements of the FBI WPEA of 2016

To conform to the requirements of the FBI WPEA of 2016, the Department proposes to expand the set of offices and officials to whom a ''protected disclosure'' must be made. Under the current rule, a disclosure is considered protected if (1) its content qualifies for protection, and (2) it was made to one of these identified entities or individuals:

- the Department's Office of Professional Responsibility;
- the Department's Office of the Inspector General;

- the FBI Office of Professional Responsibility;
- the FBI Inspection Division Internal Investigations Section;
- the Attorney General;
- the Deputy Attorney General;
- the Director of the FBI;
- the Deputy Director of the FBI; or
- the highest ranking official in any FBI field office.

See 28 CFR 27.1(a). The proposed rule would expand this list to comply with the changes made by the FBI WPEA of 2016. *See* Public Law 114–302, sec. 2. Specifically, the proposed rule would require that, to be protected, a disclosure must be made to:

- a supervisor in the direct chain of command of the employee, up to and including the Attorney General;
- the Inspector General;
- the Department's Office of Professional Responsibility;
- the FBI Office of Professional Responsibility;
- the FBI Inspection Division;
- Congress, as described in section 7211;
- OSC; or
- an employee of any of the above entities, when designated by any officer, employee, office, or division thereof for the purpose of receiving such disclosures.

In addition, in order to emphasize the necessity of making a disclosure to a designated recipient for it to be protected (where it meets the substantive requirements), the Department proposes adding paragraph (c) in § 27.1, stating expressly that a disclosure must be made to one of the offices or officials specified in paragraph (a) in § 27.1 in order to qualify as a protected disclosure under part 27. This change would not alter the substantive requirements of the current § 27.1, and does not restrict the expanded list of offices and officials to whom a disclosure may be made as described immediately above, but is added to avoid any potential misunderstanding regarding this key procedural element of a protected disclosure covered by part 27. FBI whistleblowers are only entitled to statutory protection from reprisals for making protected disclosures when they make disclosures to offices or officials specifically listed in the FBI WPEA of 2016. To ensure FBI whistleblowers are fully protected, this change clearly identifies the expanded list of offices and officials to whom disclosures must be made. The Department invites comments on this proposed change.

2. Revising the Substantive Requirements of a Protected Disclosure To Conform to the Requirements of the FBI WPEA of 2016

The Department proposes amendments to 28 CFR 27.1(a)(1) and (a)(2) to conform to the substantive requirements of a protected disclosure found in 5 U.S.C. 2303(a)(2)(A) and (B), as amended by the FBI WPEA of 2016. Specifically, the Department proposes that 28 CFR 27.1(a)(1) be changed from ''A violation of any law, rule, or regulation'' to ''Any violation of any law, rule, or regulation.'' The Department also proposes that, for the same reason, ''Mismanagement'' in 28 CFR 27.1(a)(2) be removed and replaced with ''Gross mismanagement.'' The Department invites comments on this proposed change.

3. Revising the Definition of ''Prohibited Personnel Practice'' Following Enactment of the WPEA of 2012

The Department also proposes an amendment to 28 CFR 27.2(b) to conform § 27.2(b)'s definition of ''personnel action'' to the definition now found in 5 U.S.C. 2302(a)(2)(A). Section 2303 provides that, ''[f]or the purpose of this subsection, 'personnel action' means any action described in clauses (i) through (x) of section 2302(a)(2)(A).'' When section 2303 was first enacted, section 2302(a)(2)(A) contained only ten clauses, designated (i) through (x), and thus the definition of ''personnel action'' was identical for both sections. Clause (x) was a ''catch-all'' provision covering ''any other significant change in duties, responsibilities, or working conditions.'' In 1994, Congress added an additional personnel action to section 2302(a)(2)(A), a decision to order psychiatric testing or examination. *See* Public Law 103–424, sec. 5(a) (1994). The additional personnel action was designated as clause (x), and the catch-all provision was re-designated as clause (xi). *Id.* sec. 5(a)(2). This change did not alter section 2303, which continued to refer only to ''clauses (i) through (x) of section 2302(a)(2)(A).'' Pursuant to the Attorney General's authority under 5 U.S.C. 301 to ''prescribe regulations for the government of [the] department [and] the conduct of its employees,'' the Department accepted commenters' recommendations to define ''personnel action'' to include all eleven personnel actions in section 2302(a)(2)(A), including the catch-all provision, in its 1999 final rule, as codified at 28 CFR 27.2(b). *See* 64 FR 58784–85

Several years after this change, the WPEA of 2012 added a twelfth personnel action to section 2302(a)(2)(A): ''the implementation or enforcement of any nondisclosure policy, form, or agreement'' (the nondisclosure provision). Public Law 112–199, sec. 104(a)(2). This new provision was designated as clause (xi), while the catch-all provision, formerly clause (xi), became clause (xii).

The Department proposes to define ''personnel action'' in § 27.2(b) to include all twelve personnel actions currently listed in section 2302(a)(2)(A), including the nondisclosure provision added by the WPEA of 2012. Doing so will ensure that FBI employees making protected disclosures are shielded against the same adverse personnel actions as other Federal civilian employees, which appears to have been the underlying purpose of incorporating section 2302's definition of ''personnel action'' into section 2303. The Attorney General has the authority to incorporate the nondisclosure provision into the definition of ''personnel action'' in § 27.2(b) pursuant to 5 U.S.C. 301, which authorizes the Attorney General to ''prescribe regulations for the government of [the] department [and] the conduct of its employees.'' *See In re Boeh,* 25 F.3d 761, 763 (9th Cir. 1994) (explaining that section 301 permits the Department of Justice to regulate ''the conduct of employees, the performance of the agency's business, and the use of its records''). The Attorney General invoked the same authority in the 1999 final rule discussed above. 64 FR 58784–85. The net effect of the proposed revisions to the definition of ''personnel action'' in § 27.2(b) will be to retain the catch-all provision, while also including the non-disclosure provision added by the WPEA of 2012. The Department invites comments on this proposed change.

4. Equalizing Access to Witnesses

During the PPD–19 review, whistleblower advocate groups raised concerns that, in an unspecified number of cases, the FBI has been able to obtain evidence from FBI management officials or employees as witnesses, either through affidavits or testimony at a hearing, but that complainants were unable to obtain similar access to FBI witnesses, particularly former employees. Because the Director of OARM (''OARM Director'') lacks the authority to compel attendance at a hearing, appearance at a deposition, or the production of documentary evidence from individuals not currently employed by the Department, the groups asked the Department to

consider a regulatory provision that would help all parties equalize access to witnesses. Therefore, the Department proposes adding a sentence to § 27.4(e)(3) to give the OARM Director the discretion to prohibit a party from adducing or relying on evidence from a person whom the opposing party does not have an opportunity to examine or to give less weight to such evidence. The Department invites comments on this proposed change.

5. Improving Case Processing by Use of Acknowledgement and Show-Cause Orders

The Department proposes to formalize the use of acknowledgement and show-cause orders by the OARM Director to assist in the management and adjudication of whistleblower reprisal claims.

Under OARM's current procedures, 28 CFR 27.4(c)(1), when a complainant files a request for corrective action (''RCA'') with OARM, the OARM Director is to notify the FBI of the RCA—usually by forwarding the RCA to the FBI—and provide the FBI 25 calendar days to file its response. In some instances, however, the allegations in a complainant's RCA are insufficient to allow either the OARM Director or the FBI to reasonably construe the specific claims raised. In such cases, the agency's usual practice is for the OARM Director to issue an order requiring the complainant to supplement the RCA to specifically address the elements of a whistleblower claim necessary for OARM's jurisdiction. The OARM Director then forwards the RCA, as supplemented, to the FBI for a response. The complainant is afforded an opportunity to file a reply to the FBI's response, and the FBI is afforded time to file a surreply. The OARM Director then makes a jurisdictional determination regarding the complainant's RCA. If the OARM Director finds that it has jurisdiction to consider all or some of the complainant's claims, the parties are so notified and are directed to engage in relevant discovery.

The MSPB's analogous procedures illustrate how the use of acknowledgment and show-cause orders may expedite the process. *See* Merit Sys. Protection Bd., Judges' Handbook 19–21 (2019), *https://www.mspb.gov/appeals/files/ALJHandbook.pdf.* At the MSPB, an administrative judge must ordinarily issue an acknowledgment order within three business days of receipt of an appeal; that order acknowledges receipt of the appeal and informs the parties of the MSPB's case processing procedures regarding, for example, designation of a representative, discovery, and settlement. *Id.* at 20.

The proposed amendments at § 27.4(f) would formalize the OARM Director's existing use of acknowledgment and show-cause orders similar to those issued by the MSPB. The current language pertaining to OARM's initial case processing procedures in 28 CFR 27.4(c)(1) would be revised accordingly to reflect the practice used by the OARM Director in issuing an acknowledgment order, which would also be reflected in a new paragraph (f) in § 27.4. The new paragraph (f) would also formalize the practice of issuing a show-cause order where the OARM Director determines that there is an initial question of jurisdiction and would contain procedures relating thereto. The Department invites comments on this proposed change.

6. Awarding Compensatory Damages

In directing agency heads to consider corrective actions in cases in which reprisal for whistleblowing is found to have occurred, PPD–19 provided that corrective action may include compensatory damages, to the extent authorized by law. PPD–19 at 2. Accordingly, the Department proposes amending paragraph (g) of § 27.4 to provide that the OARM Director may award compensatory damages to the extent authorized by law, in addition to other available relief. Currently, under § 27.4(f), permissible OARM corrective action includes: placing the Complainant, as nearly as possible, in the position he would have been in had the reprisal not taken place; reimbursement for attorney's fees, reasonable costs, medical costs incurred, and travel expenses; back pay and related benefits; and any other reasonable and foreseeable consequential damages. The Department invites comments on this proposed change.

7. Reporting Findings of Unlawful Reprisal

In drafting the PPD–19 Report, the Department considered a recommendation that any final decision that includes a finding of unlawful reprisal be forwarded to the appropriate authority for consideration of whether disciplinary action is warranted against the officials responsible for the reprisal. In 2013, the OARM Director implemented a policy of forwarding to the FBI Office of Professional Responsibility, the FBI Inspection Division, and the FBI Director a copy of the final determination in cases where the OARM Director finds reprisal. That decision includes citations to the supporting evidence of record as well as the names of the officials found to be responsible for the reprisal. The Department proposes to formalize this process through the addition of paragraph (h) in § 27.4. The Department invites comments on this proposed change.

8. Proposed Statement: Independence and Impartiality of OARM Determinations

During the Department's PPD–19 review, whistleblower advocates expressed concern with the internal Departmental adjudication of FBI reprisal cases brought under part 27. In drafting the PPD–19 Report, the Department considered whether to amend part 27 to make explicit what has always been implicit regarding the independence and impartiality of the determinations made by the OARM Director. The Department thus proposes adding language to § 27.4(e)(1) to note expressly that the determinations made by the OARM Director shall be independent and impartial. The Department invites comments on this proposed change.

9. Providing Access to Alternative Dispute Resolution (''ADR'')

As a result of its review under PPD–19, the Department determined that ADR should be made more readily available in whistleblower cases because ADR can focus the parties' attention at early stages of a proceeding, enabling each side to learn more about the other side's goals in a manner that may facilitate early resolution. PPD–19, at 11. Accordingly, the Department created a voluntary mediation program for FBI whistleblower cases using the existing Department of Justice Mediator Corps (''DOJMC'').

The Department's Equal Employment Opportunity (''EEO'') community created the DOJMC Program in 2009 as a means of informal resolution to address and, when possible, resolve workplace disputes. Although the program focuses on EEO issues, the mediators are available to help resolve any type of dispute. The FBI Office of Equal Employment Opportunity Affairs is responsible for the operational management of the DOJMC Program, the scope of which is Department-wide. The DOJMC currently has approximately 70 collateral-duty mediators. Roughly two-thirds are FBI employees; the remaining mediators are drawn from across other Department components. Current mediator resources are expected to be sufficient to make available a mediator

from outside the FBI should the complainant so desire.

The Department launched the mediation program for FBI whistleblower cases in April 2014, staffed by a cadre of skilled mediators trained by the Department for that purpose. The Department proposes to formalize inclusion of the ADR program by amending part 27 to add § 27.7, which would provide that the complainant may request ADR from the time of the filing of the initial claim with the office that will conduct the investigation (''Conducting Office''), *see* 28 CFR 27.3(c), and at any subsequent point thereafter throughout the process. Under proposed new paragraph (b) of § 27.7, if the Complainant elects ADR, the FBI, represented by the Office of General Counsel, will participate. When ADR is elected, under proposed new paragraph (c) of § 27.7, proceedings will be stayed upon transmittal of the matter to the DOJMC Program office. The initial period of the stay will be 90 days and may be extended for up to 45 additional days upon joint request from the parties to the office before which the matter is stayed. Additional requests for an extension of the stay would be available only by grant of the OARM Director, regardless of the office before which the matter is pending, and only upon joint request by the parties showing good cause. The Department invites comments on this proposed change.

10. Authority of the OARM Director To Adjudicate Allegations of a Breach of a Settlement Agreement

The Department has concluded that the OARM Director should adjudicate allegations of a breach of any settlement agreement reached in proceedings and in a forum under this part 27. Arguably, the OARM Director would have the authority to do so under the change proposed for § 27.4(e)(4) because the provision includes the broad authority to manage the adjudication of claims of reprisal. The Department nonetheless proposes to add § 27.8 making clear that the OARM Director has authority to adjudicate allegations of a breach of a settlement agreement reached in proceedings and in a forum under this part 27. In addition, § 27.8 would state that, in carrying out the function of adjudicating claims of a breach of such settlement agreements, the OARM Director shall exercise the authorities granted under the change proposed for § 27.4(e)(4), in accordance with any procedures the OARM Director may establish to facilitate the efficient discharge of that function. The new § 27.8 also would provide the parties with a right of review by the Deputy Attorney General of any decision by the OARM Director on a breach of settlement claim. The Department invites comment on this proposed change.

11. Invitation To Submit Comments and Recommendations To Enhance Fairness, Efficiency and Transparency Regarding Whistleblower Activity, Including To Provide Enhanced Protections for Whistleblowers

The Department believes that the process by which it adjudicates allegations that the FBI has retaliated against whistleblowers should be as fair, effective, efficient, and transparent as possible. The Department therefore invites specific comments on and recommendations for how the Department might revise part 27 to increase fairness, effectiveness, efficiency, and transparency, including to provide enhanced protections for whistleblowers, in addition to the proposed changes described above.

V. Regulatory Analyses

In developing this proposed rule, the Department considered numerous statutes and executive orders applicable to rulemaking. The Department's analysis of the applicability of those statutes and executive orders to this rulemaking is summarized below.

A. Executive Orders 12866 (Regulatory Planning and Review) and E.O. 13563 (Improving Regulation and Regulatory Review)

This proposed rule is not a significant regulatory action under section 3(f) of Executive Order 12866, as supplemented by Executive Order 13563. The proposed rule proposes procedural changes to the existing regulatory framework for resolving claims of whistleblower retaliation by FBI employees and applicants. The proposed changes will not materially affect the number of claims or the time, cost, or resources required to address them. The proposed rule if adopted would not have an annual effect on the economy of $100 million or more, adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; would not create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; would not materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; and would not raise novel legal or policy issues. Accordingly, this rule does not require an assessment of potential costs and benefits under section 6(a)(3) of Executive Order 12866. The Office of Management and Budget has not reviewed this rule under these Orders.

B. Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980, 5 U.S.C. 601–12, 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. 5 U.S.C. 601.

The Department certifies under 5 U.S.C. 605(b) that this proposed rule will not have a significant economic impact on a substantial number of small entities. The proposed rule addresses the Department's internal process for addressing allegations of retaliation for protected whistleblowing by FBI employees and applicants. It has no application to small entities as defined above. The proposed rule, if adopted, would perhaps have tangential, indirect, and transitory impact on law firms and advocacy organizations representing FBI whistleblowers inasmuch as they would have to become familiar with the changes in procedure.

If your business, organization, or governmental jurisdiction qualifies as a small entity and you believe this rule would have a significant economic impact on it, please submit a comment (see **ADDRESSES** list, page 2, *supra*) explaining why you think your entity qualifies and how and to what degree this rule would economically affect it.

C. Small Business Regulatory Enforcement Fairness Act of 1996

In accordance with section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121), the Department will assist small entities in understanding this proposed rule. If you believe 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 persons listed in the **FOR FURTHER INFORMATION CONTACT** section, above.

D. Paperwork Reduction Act

This proposed rule will not call for a new collection of information under the Paperwork Reduction Act of 1995, 44 U.S.C. 3501–20. Specifically, the existing and proposed rules regulate

administrative actions or investigations involving an agency against specific individuals or entities and thus fall outside the scope of the Paperwork Reduction Act. *See* 44 U.S.C. 3518(c)(1)(B)(ii).

E. Executive Order 13132 (Federalism)

A rule has federalism implications under Executive Order 13132 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. E.O. 13132, sec. 1(a). The Department has analyzed this proposed rule under that Order and determined that this rule does not have federalism implications.

F. Unfunded Mandates Reform Act of 1995

The Unfunded Mandates Reform Act of 1995, 2 U.S.C. 1531–38, requires Federal agencies to determine whether a rule, if promulgated, will result in the expenditure by State, local, or tribal government, in the aggregate, or by the private sector, of $100 million (adjusted for inflation) or more in any one year. 2 U.S.C. 1532(a). This proposed rule would not require or result in expenditures by any of the above-named entities. The rule addresses the Department's internal procedures related to protected disclosures.

G. Executive Order 12988 (Civil Justice Reform)

This proposed rule meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988.

H. Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments)

This proposed rule does not have tribal implications under Executive Order 13175 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.

I. Congressional Review Act

The reporting requirements of the Congressional Review Act (Subtitle E of the Small Business Regulatory Enforcement Fairness Act of 1996), 5 U.S.C. 801–08, do not apply to the proposed rule. First, this rule relates primarily to agency management, personnel, and organization. 5 U.S.C. 804(3)(B). Second, to the extent that the rule affects non-agency parties such as applicants for employment and former employees, these parties are a small subset of the cases subject to the proposed rule, and the rule does not substantially affect such parties' substantive rights or obligations. *Id.* 803(3)(C). Instead, the rule makes changes primarily related to administrative processing of whistleblower retaliation cases. This action is accordingly not a ''rule'' as that term is used by the Congressional Review Act, *see* 5 U.S.C. 804(3), and the reporting requirement of 5 U.S.C. 801 does not apply.

List of Subjects

28 CFR Part 0

Authority delegations (Government agencies), Government employees, National defense, Organization and functions (Government agencies), Privacy, Reporting and recordkeeping requirements, Whistleblowing.

28 CFR Part 27

Government Employees; Justice Department; Organization and functions (Government agencies); Whistleblowing.

Authority and Issuance

For the reasons stated above, the Department of Justice proposes to amend 28 CFR parts 0 and 27 as follows:

PART 0 ORGANIZATION OF THE DEPARTMENT OF JUSTICE

■ 1. The authority citation for part 0 continues to read as follows:

Authority: 5 U.S.C. 301; 28 U.S.C. 509, 510, 515–519.

§ 0.29d [Amended]

■ 2. Amend § 0.29d, in paragraph (a), by:
■ a. Removing the words ''a violation'' and adding in their place the words ''any violation'';
■ b. Removing the word ''mismanagement'' and adding in its place the words ''gross mismanagement''.

PART 27—WHISTLEBLOWER PROTECTION FOR FEDERAL BUREAU OF INVESTIGATION EMPLOYEES

■ 3. The authority citation for part 27 is revised to read as follows:

Authority: 5 U.S.C. 301, 3151; 28 U.S.C. 509, 510, 515–519; 5 U.S.C. 2303; President's Memorandum to the Attorney General, Delegation of Responsibilities Concerning FBI Employees Under the Civil Service Reform Act of 1978, 3 CFR p. 284 (1997); Presidential Policy Directive 19, ''Protecting Whistleblowers with Access to Classified Information'' (October 10, 2012).

■ 4. Amend § 27.1 by:
■ a. Revising the introductory text of paragraph (a)
■ b. In paragraph (a)(1), removing the words ''A violation,'' and adding in their place ''Any violation'';
■ c. In paragraph (a)(2), removing the word ''Mismanagement,'' and adding in its place ''Gross mismanagement'';
■ d. Adding paragraph (c).

The revisions and addition read as follows.

§ 27.1 Making a protected disclosure.

(a) When an employee of, or applicant for employment with, the Federal Bureau of Investigation (FBI) (FBI employee) makes a disclosure of information to a supervisor in the direct chain of command of the employee, up to and including the Attorney General; to the Department of Justice's (Department's) Office of the Inspector General (OIG), the Department's Office of Professional Responsibility (OPR), the FBI Office of Professional Responsibility (FBI OPR), or the FBI Inspection Division (FBI–INSD) (collectively, Receiving Offices); to Congress as described in 5 U.S.C. 7211; to the Office of Special Counsel; or to an employee of any of the foregoing entities when designated by any officer, employee, office, or division named in this subsection for the purpose of receiving such disclosures, the disclosure will be a ''protected disclosure'' if the person making it reasonably believes that it evidences:

* * * * *

(c) To be a ''protected disclosure'' under this part, the disclosure must be made to an office or official specified in paragraph (a) of this section.

§ 27.2 [Amended]

■ 5. Amend § 27.2, in paragraph (b), by removing ''(xi)'' and adding in its place ''(xii)''.
■ 6. Amend § 27.4 by:
■ a. In paragraph (a), removing the term ''paragraph (e)'' and adding in its place ''paragraphs (e) and (f)'';
■ b. Revising the second sentence of paragraph (c)(1);
■ c. Adding a sentence at the end of paragraph (e)(1), revising paragraph (e)(3), and adding paragraph (e)(4); and
■ d. Revising paragraphs (f) and (g);
■ e. Adding paragraphs (h) and (i).

The revisions and the additions read as follows:

§ 27.4 Corrective action and other relief; Director, Office of Attorney Recruitment and Management.

* * * * *

(c) * * *

(1) * * * Within 5 business days of the receipt of the request, the Director

shall issue an Acknowledgment Order in accordance with paragraph (f)(1) of this section. * * *

* * * * *

(e)(1) * * * The determinations made by the Director shall be independent and impartial.

* * * * *

(3) In making the determinations required under this paragraph, the Director may hold a hearing at which the Complainant may present evidence in support of his or her claim, in accordance with such procedures as the Director may adopt. The Director is hereby authorized to compel the attendance and testimony of, or the production of documentary or other evidence from, any person employed by the Department if doing so appears reasonably calculated to lead to the discovery of admissible evidence, is not otherwise prohibited by law or regulation, and is not unduly burdensome. The Director may prohibit a party from adducing or relying on evidence from a person whom the opposing party does not have an opportunity to examine, or the Director may give less weight to such evidence. Any privilege available in judicial and administrative proceedings relating to the disclosure of documents or the giving of testimony shall be available before the Director. All assertions of such privileges shall be decided by the Director. The Director may, upon request, certify a ruling on an assertion of privilege for review by the Deputy Attorney General.

(4) Subject to paragraph (f) of this section, the Director may establish such procedures as he or she deems reasonably necessary to carry out the functions assigned under this paragraph.

(f)(1) Within 5 business days of receipt by the Director under paragraph (a) of this section of a report from a Conducting Office, or a request for corrective action from a Complainant under paragraph (c)(1) of this section, the Director shall issue an Acknowledgement Order that:

(i) Acknowledges receipt of the report or request;

(ii) Informs the parties of the relevant case processing procedures and timelines, including the manner of designation of a representative, the time periods for and methods of discovery, the process for resolution of discovery disputes, and the form and method of filing of pleadings;

(iii) Informs the parties of the jurisdictional requirements for full adjudication of the request; and

(iv) Informs the parties of their respective burdens of proof.

(2) In cases where the Director determines that there is a question about the Director's jurisdiction to review a request from the Complainant, the Director shall, simultaneously with the issuance of the Acknowledgement Order, issue a Show-Cause Order explaining the grounds for such determination and directing that the Complainant, within 10 calendar days of receipt of such order, submit a written statement, accompanied by evidence, to explain why the request should not be dismissed for lack of jurisdiction. The Complainant's written statement must provide the following information as necessary to address the jurisdictional question or as otherwise directed:

(i) The alleged protected disclosure or disclosures;

(ii) The date on which the Complainant made any such disclosure;

(iii) The name and title of any individual or office to whom the Complainant made any such disclosure;

(iv) The basis for the Complainant's reasonable belief that any such disclosure evidenced any violation of law, rule, or regulation; gross mismanagement; a gross waste of funds; an abuse of authority; or a substantial and specific danger to public health or safety;

(v) Any action the FBI allegedly took or failed to take, or threatened to take or fail to take, against the Complainant because of any such disclosure, the name and title of all officials responsible for each action, and the date of each action;

(vi) The basis for the Complainant's belief that any official responsible for an action knew of any protected disclosure, and the date on which the official learned of the disclosure;

(vii) The relief sought; and

(viii) The date the reprisal complaint was filed with the Investigative Office and the date on which the Conducting Office notified the Complainant that it was terminating its investigation into the complaint, or if the Complainant has not received such notice, evidence that 120 days have passed since the Complainant filed a complaint of reprisal with the Investigative Office.

(3) The FBI shall file a reply to the Complainant's response to the Show-Cause Order within 20 calendar days of receipt of such reply.

(i) The reply shall address issues identified by the Director in the Show-Cause Order and matters raised in the Complainant's response to that order under paragraph (f)(2) of this section, and shall include: a statement identifying any FBI actions taken against the Complainant and the reasons for taking such actions; designation of and signature by the FBI legal representative; and any other documents or information requested by the Director.

(ii) The reply may also include any and all documents contained in the FBI record of the action or actions.

(4) After receipt of the FBI's response, the record on the jurisdictional issue will close, absent a request from either party establishing exigent circumstances requiring the need for the presentation of additional evidence or arguments.

(g) If the Director orders corrective action, such corrective action may include: placing the Complainant, as nearly as possible, in the position he or she would have been in had the reprisal not taken place; reimbursement for attorney's fees, reasonable costs, medical costs incurred, and travel expenses; back pay and related benefits; compensatory damages to the extent authorized by law; and any reasonable and foreseeable consequential damages.

(h) Whenever the Director determines that there has been a reprisal prohibited by § 27.2 of this part, the Director, in addition to ordering any corrective action as authorized by § 27.4(g), above, shall forward to the FBI OPR and the FBI–INSD, with a copy to the Director of the FBI, a written summary of the Director's findings of reprisal, the evidence supporting the findings, and the officials responsible for the reprisal. FBI OPR shall make a determination of whether disciplinary action is warranted against any officials the Director identified as responsible for the reprisal.

(i) If the Director determines that there has not been any reprisal prohibited by § 27.2, the Director shall report this finding in writing to the Complainant, the FBI, and the Conducting Office.

■ 7. Revise § 27.5 to read as follows:

§ 27.5 Review.

(a) Within 30 calendar days of a finding of a lack of jurisdiction, a final determination on the merits, or corrective action ordered by the Director, the Complainant or the FBI may request review by the Deputy Attorney General of that determination or order. The Deputy Attorney General shall set aside or modify the *Director's* actions, findings, or conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law; obtained without procedures required by law, rule, or regulation having been followed; or unsupported by substantial evidence. The Deputy Attorney General has full discretion to *review* and modify

corrective action ordered by the *Director,* provided, however that if the Deputy Attorney General upholds a finding that there has been a reprisal, then the Deputy Attorney general shall order appropriate corrective action.

(b) The parties may not file an interlocutory appeal to the Deputy Attorney General from a procedural ruling made by the Director during proceedings pursuant to section 27.4 of this part. The Deputy Attorney General has full discretion to review such rulings by the Director during the course of reviewing an appeal of the Director's finding of a lack of jurisdiction, final determination, or corrective action order brought under paragraph (a).

(c) In carrying out the functions set forth in this section, the Deputy Attorney General may issue written directives or orders to the parties as necessary to ensure the efficient and fair administration and management of the review process.

■ 8. Add § 27.7 to read as follows:

§ 27.7 Alternative dispute resolution.

(a) At any stage in the process set forth in §§ 27.3 through 27.5 of this part, the Complainant may request Alternative Dispute Resolution (ADR) through the Department of Justice Mediator Corps (DOJMC) Program. The Complainant may elect to participate in ADR by notifying in writing the office before which the matter is then pending.

(b) If the Complainant elects mediation, the FBI, represented by the Office of General Counsel, will participate.

(c) When the Complainant requests to engage in ADR, the process set forth in §§ 27.3 through 27.5, as applicable, including all time periods specified therein, will be stayed for an initial period of 90 days, beginning on the date of transmittal of the matter to the DOJMC Program office. Upon joint request by the parties to the office before which the matter is stayed, the period of the stay may be extended up to an additional 45 days. Further requests for extension of the stay may be granted only by the Director, regardless of the office before which the matter is pending, upon a joint request showing good cause. The stay otherwise will be lifted if the DOJMC Program notifies the office before which the matter is stayed that the Complainant no longer wishes to engage in mediation, or that the parties are unable to reach agreement on resolution of the complaint and that continued efforts at mediation would not be productive.

■ 9. Add § 27.8 to read as follows:

§ 27.8 Authority of the Director to review and decide claims of a breach of a settlement agreement.

(a) Any party to a settlement agreement reached in proceedings and in a forum under this part may file a claim of a breach of that settlement agreement with the Director within 30 days of the date on which the grounds for the claim of breach were known.

(b) The Director shall adjudicate any timely claim of a breach of a settlement agreement. The Director shall exercise the authority granted under § 27.4(e)(4) to ensure the efficient administration and management of the adjudication of the breach claim, pursuant to any procedures the Director deems reasonably necessary to carry out the functions assigned under this paragraph.

(c) A party may request, within 30 calendar days of a decision on a claim of a breach of a settlement agreement by the Director, review of that decision by the Deputy Attorney General.

Dated: March 17, 2023.

Merrick B. Garland,

Attorney General.

[FR Doc. 2023–05927 Filed 3–28–23; 8:45 am]

BILLING CODE 4410–AR–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R09–OAR–2023–0092; FRL–10674–01–R9]

Air Plan Revisions; California; Eastern Kern Air Pollution Control District; Oxides of Nitrogen

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing a limited approval and limited disapproval of a revision to the Eastern Kern Air Pollution Control District (EKAPCD) portion of the California State Implementation Plan (SIP). These revisions concern emissions of oxides of nitrogen (NO_X) from stationary gas turbines. We are proposing action on a local rule that regulates these emissions sources under the Clean Air Act (CAA). We are taking comments on this proposal and plan to follow with a final action.

DATES: Comments must be received on or before April 28, 2023.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–R09–OAR–2023–0092 at *https://www.regulations.gov*. For comments submitted at *Regulations.gov*, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from *Regulations.gov*. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets*. If you need assistance in a language other than English or if you are a person with disabilities who needs a reasonable accommodation at no cost to you, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section.

FOR FURTHER INFORMATION CONTACT: La Kenya Evans-Hopper, EPA Region IX, 75 Hawthorne St., San Francisco, CA 94105. By phone: (415) 972–3245 or by email at *evanshopper.lakenya@epa.gov*.

SUPPLEMENTARY INFORMATION: Throughout this document, ''we,'' ''us'' and ''our'' refer to the EPA.

Table of Contents

I. The State's Submittal

A. What rule did the State submit?

Table 1 lists the rule addressed by this proposal with the dates that it was adopted by the local air agency and submitted by the California Air Resources Board (CARB).

TABLE 1—SUBMITTED RULE

Local agency	Rule #	Rule title	Revised	Submitted
EKAPCD	425	Stationary Gas Turbines (Oxides of Nitrogen)	01/11/18	05/23/18

On November 15, 2018, the EPA determined that the submittal for EKAPCD Rule 425 met the completeness criteria in 40 CFR part 51, appendix V, which must be met before formal EPA review.

B. Are there other versions of this rule?

We approved an earlier version of Rule 425 into the SIP on March 1, 1996 (61 FR 7992). The EKAPCD adopted revisions to the SIP-approved version on January 11, 2018, and the CARB submitted them to us on May 23, 2018. If we take final action to approve the January 11, 2018 version of Rule 425, this version will replace the previously approved version of this rule in the SIP.

C. What is the purpose of the submitted rule revision?

Emissions of NO_X contribute to the production of ground-level ozone, smog and particulate matter (PM), which harm human health and the environment. Section 110(a) of the CAA requires states to submit regulations that control NO_X emissions. Rule 425 establishes updated limits on NO_X and carbon monoxide (CO) for stationary gas turbine engines (units), equal to or greater than 0.88 megawatts (MW) operating in the EKAPCD. NO_X emission limits were set for stationary turbines, depending on their size, for both gaseous and liquid fuel, with exemptions for smaller low-use engines, emergency standby units, and additional categories described in the technical support document (TSD). NO_X emission limits and work practice standards were also set for periods of startup and shutdown. Monitoring requirements for continuous emissions monitoring system (CEMS) control system operating parameters, providing source testing for the exhaust gas NO_X concentration, maintenance of records for five years, and clarification on monitoring exhaust gas NO_X concentrations for units at 10 MW or greater were added. Extra test methods for NO_X and oxygen for compliance testing and administrative requirements for exempt units have been added to the rule. The EPA's TSD has more information about this rule.

II. The EPA's Evaluation and Action

A. How is the EPA evaluating the rule?

Rules in the SIP must be enforceable (see CAA section 110(a)(2)) and must not interfere with applicable requirements concerning attainment and reasonable further progress or other CAA requirements (see CAA section 110(l)).

Generally, SIP rules must require reasonably available control technology (RACT) for each major source of NO_X in ozone nonattainment areas classified as Moderate or above (see CAA sections 182(b)(2) and 182(f)). The EKAPCD regulates an ozone nonattainment area classified as Serious for the 2015 8-hour ozone National Ambient Air Quality Standards (NAAQS), Severe for the 2008 8-hour ozone NAAQS and Moderate for the 1997 8-hour ozone NAAQS. (40 CFR 81.305). Therefore, this rule must implement RACT for major sources in the nonattainment area.

Guidance and policy documents that we used to evaluate enforceability, revision/relaxation and rule stringency requirements for the applicable criteria pollutants include the following:

1. ''Issues Relating to VOC Regulation Cutpoints, Deficiencies, and Deviations,'' EPA, May 25, 1988 (the Bluebook, revised January 11, 1990).
2. ''Guidance Document for Correcting Common VOC & Other Rule Deficiencies,'' EPA Region 9, August 21, 2001 (the Little Bluebook).
3. ''State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction,'' 80 FR 33839, June 12, 2015.
4. ''NO_X Emissions from Stationary Gas Turbines,'' EPA 453/R–93–007, January 1993.
5. ''Determination of Reasonably Available Control Technology and Best Available Retrofit Control Technology for the Control of Oxides of Nitrogen from Stationary Gas Turbines,'' CARB, May 18, 1992.

B. Does the rule meet the evaluation criteria?

Rule 425 improves the SIP by expanding the applicability threshold of the rule to smaller units and non-cogeneration units, strengthening requirements during startup and shutdown periods, and clarifying monitoring, recording and recordkeeping provisions. The rule is largely consistent with CAA requirements and relevant guidance regarding enforceability, RACT, and SIP revisions. Rule provisions which do not meet the evaluation criteria are summarized below and discussed further in the TSD.

C. What are the rule deficiencies?

The EPA is proposing to determine that the following provision does not satisfy the requirements of section 110 and part D of title I of the Act and prevents full approval of the SIP revision, for reasons described here and explained in further detail in the TSD.

1. Rule 425, section (V)(B) revised the NO_X limits for Westinghouse W251B10 turbines with Authority to Construct permits issued before 1983 to 25 parts per million by volume. This revised limit is higher than the limits for comparably sized units elsewhere in the District, and higher than the limits applicable to such units in the existing SIP- approved version of Rule 425. The submission has not sufficiently justified why this higher limit meets the RACT requirement. Moreover, the submission, which is seemingly a relaxation of the rule, is not accompanied with a sufficient explanation as to why the relaxation does not interfere with attainment of the NAAQS or reasonable further progress. As a result, the submission has not shown compliance with the requirement of CAA section 110(l).

D. The EPA's Recommendations to Further Improve the Rule

The TSD includes recommendations for the next time local agency modifies the rule.

E. Public Comment and Proposed Action

As authorized in section 110(k)(3) of the Act, the EPA proposes a limited approval of the submitted rule because it largely fulfills all relevant requirements and strengthens the SIP. The EPA simultaneously proposes a limited disapproval because of the

deficiency described in Section II.C of this document. We will accept comments from the public on this proposal until April 28, 2023. If finalized, this action would incorporate the submitted rule into the SIP, including those provisions identified as deficient. This approval is limited because the EPA is simultaneously proposing a limited disapproval of the rule under section 110(k)(3).

If we finalize this disapproval, CAA section 110(c) would require the EPA to promulgate a federal implementation plan within 24 months unless we approve a subsequent SIP revision that corrects the deficiencies identified in our evaluation.

In addition, final disapproval would trigger the offset sanction in CAA section 179(b)(2) 18 months after the effective date of a final disapproval, and the highway funding sanction in CAA section 179(b)(1) six months after the offset sanction is imposed. A sanction will not be imposed if the EPA determines that a subsequent SIP submission corrects the deficiencies identified in our final action before the applicable deadline.

III. Incorporation by Reference

In this rule, the EPA is proposing to include in a final EPA rule regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is proposing to incorporate by reference the EKAPCD Rule 425, Stationary Gas Turbines (Oxides of Nitrogen), revised January 11, 2018, which regulates NO_X and CO for stationary gas turbine engines equal to or greater than 0.88 MW. The EPA has made, and will continue to make, these materials available through *https://www.regulations.gov* and at the EPA Region IX Office (please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble for more information).

IV. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at *http://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 not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review.

B. Paperwork Reduction Act (PRA)

This action does not impose an information collection burden under the PRA because this action does not impose additional requirements beyond those imposed by state law.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities beyond those imposed by state law.

D. Unfunded Mandates Reform Act (UMRA)

This 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. This action does not impose additional requirements beyond those imposed by state law. Accordingly, no additional costs to state, local, or tribal governments, or to the private sector, will result from this action.

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: Coordination With Indian Tribal Governments

This action does not have tribal implications, as specified in Executive Order 13175, because the SIP is not approved to apply on any Indian reservation land or in any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction, and will not impose substantial direct costs on tribal governments or preempt tribal law. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the 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 action is not subject to Executive Order 13045 because it does not impose additional requirements beyond those imposed by state law.

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

This 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 (NTTAA)

Section 12(d) of the NTTAA directs the EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. The EPA believes that this action is not subject to the requirements of section 12(d) of the NTTAA because application of those requirements would be inconsistent with the CAA.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Population

Executive Order 12898 (Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations, 59 FR 7629, Feb. 16, 1994) directs Federal agencies to identify and address ''disproportionately high and adverse human health or environmental effects'' of their actions on minority populations and low-income populations to the greatest extent practicable and permitted by law. 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.'' 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.''

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the EPA's role is to review state choices, and approve those choices if they meet the minimum criteria of the Act. Accordingly, this proposed action limitedly approves and limitedly disapproves state law as meeting federal requirements and does not impose

additional requirements beyond those imposed by state law.

The air agency did not evaluate environmental justice considerations as part of its SIP submittal; the CAA and applicable implementing regulations neither prohibit nor require such an evaluation. EPA did not perform an EJ analysis and did not consider EJ in this action. Due to the nature of the action being taken here, this action is expected to have a neutral to positive impact on the air quality of the affected area. Consideration of EJ is not required as part of this action, and there is no information in the record inconsistent with the stated goal of E.O. 12898 of achieving environmental justice for people of color, low-income populations, and Indigenous peoples.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Nitrogen oxides, Ozone, Reporting and recordkeeping requirements.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: March 22, 2023.

Martha Guzman Aceves,

Regional Administrator, Region IX.

[FR Doc. 2023–06342 Filed 3–28–23; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 300

[EPA–HQ–OLEM–2023–0041, 0050, 0051 and 0052; FRL–10794–01–OLEM]

National Priorities List

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Comprehensive Environmental Response, Compensation, and Liability Act (''CERCLA'' or ''the Act''), as amended, requires that the National Oil and Hazardous Substances Pollution Contingency Plan (''NCP'') include a list of national priorities among the known releases or threatened releases of hazardous substances, pollutants or contaminants throughout the United States. The National Priorities List (''NPL'') constitutes this list. The NPL is intended primarily to guide the Environmental Protection Agency (''EPA'' or ''the agency'') in determining which sites warrant further investigation. These further investigations will allow the EPA to assess the nature and extent of public health and environmental risks associated with the site and to determine what CERCLA-financed remedial action(s), if any, may be appropriate. This rule proposes to add four sites to the General Superfund section of the NPL.

DATES: Comments regarding any of these proposed listings must be submitted (postmarked) on or before May 30, 2023.

ADDRESSES: Identify the appropriate docket number from the table below.

DOCKET IDENTIFICATION NUMBERS BY SITE

Site name	City/county, state	Docket ID No.
Lukachukai Mountains Mining District	Cove, Navajo Nation, AZ	EPA–HQ–OLEM–2023–0041.
Federated Metals Corp Whiting	Hammond, IN	EPA–HQ–OLEM–2023–0050.
Capitol Lakes	Baton Rouge, LA	EPA–HQ–OLEM–2023–0051.
Fansteel Metals/FMRI	Muskogee, OK	EPA–HQ–OLEM–2023–0052.

You may send comments, identified by the appropriate docket number, by any of the following methods:

- *Federal eRulemaking Portal: https://www.regulations.gov/* (our preferred method). Follow the online instructions for submitting comments.
- *Agency Website: https://www.epa.gov/superfund/current-npl-updates-new-proposed-npl-sites-and-new-npl-sites;* scroll down to the site for which you would like to submit comments and click the ''Comment Now'' link.
- *Mail:* U.S. Environmental Protection Agency, EPA Docket Center, Superfund Docket, Mail Code 28221T, 1200 Pennsylvania Avenue NW, Washington, DC 20460.
- *Hand Delivery or Courier (by scheduled appointment only):* EPA Docket Center, WJC West Building, Room 3334, 1301 Constitution Avenue NW, Washington, DC 20004. The Docket Center's hours of operations are 8:30 a.m.–4:30 p.m., Monday–Friday (except Federal holidays).

Instructions: All submissions received must include the appropriate Docket ID No. for site(s) for which you are submitting comments. 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 Review/Public Comment'' heading of the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: Terry Jeng, Site Assessment and Remedy Decisions Branch, Assessment and Remediation Division, Office of Superfund Remediation and Technology Innovation (Mail code 5204T), U.S. Environmental Protection Agency; 1301 Constitution Avenue NW, Washington, DC 20460, telephone number: (202) 566–1048, email address: *jeng.terry@epa.gov.*

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Public Review/Public Comment

A. May I review the documents relevant to this proposed rule?

Yes, documents that form the basis for the EPA's evaluation and scoring of the sites in this proposed rule are contained in public dockets located both at the EPA Headquarters in Washington, DC, and in the regional offices. An electronic version of the public docket is available through *https://www.regulations.gov* (see table above for docket identification numbers). Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facilities.

B. What documents are available for public review at the EPA Headquarters docket?

The Headquarters docket for this proposed rule contains the following information for the sites proposed in this rule: Hazard Ranking System (HRS) score sheets; documentation records describing the information used to compute the score; information for any sites affected by particular statutory requirements or the EPA listing policies; and a list of documents referenced in the documentation record. These documents are also available online at *https://www.regulations.gov.*

C. What documents are available for public review at the EPA regional dockets?

The regional dockets for this proposed rule contain all of the information in the Headquarters docket plus the actual reference documents containing the data principally relied upon and cited by the EPA in calculating or evaluating the HRS score for the sites. These reference documents are available only in the regional dockets.

D. How do I access the documents?

You may view the primary documents that support this proposed rule online at *https://www.regulations.gov* or by contacting the EPA HQ docket. You may view the primary documents plus the references by contacting the regional dockets. The hours of operation for the headquarters docket are from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding federal holidays. Please contact the individual regional dockets for hours. The contact information for the regional dockets is as follows:

- Holly Inglis, Region 1 (CT, ME, MA, NH, RI, VT), U.S. EPA, Superfund Records and Information Center, 5 Post Office Square, Suite 100, Boston, MA 02109–3912; (617) 918–1413.
- James Desir, Region 2 (NJ, NY, PR, VI), U.S. EPA, 290 Broadway, New York, NY 10007–1866; (212) 637–4342.
- Lorie Baker, Region 3 (DE, DC, MD, PA, VA, WV), U.S. EPA, 4 Penn Center, 1600 John F. Kennedy Boulevard, Mail code 3SD12, Philadelphia, PA 19103; (315) 814–3355.
- Sandra Bramble, Region 4 (AL, FL, GA, KY, MS, NC, SC, TN), U.S. EPA, 61 Forsyth Street SW, Mailcode 9T25, Atlanta, GA 30303; (404) 562–8926.
- Todd Quesada, Region 5 (IL, IN, MI, MN, OH, WI), U.S. EPA Superfund Division Librarian/SFD Records Manager SRC–7J, Metcalfe Federal Building, 77 West Jackson Boulevard, Chicago, IL 60604; (312) 886–4465.
- Michelle Delgado-Brown, Region 6 (AR, LA, NM, OK, TX), U.S. EPA, 1201 Elm Street, Suite 500, Mailcode SED, Dallas, TX 75270; (214) 665–3154.
- Kumud Pyakuryal, Region 7 (IA, KS, MO, NE), U.S. EPA, 11201 Renner Blvd., Mailcode SUPRSTAR, Lenexa, KS 66219; (913) 551–7956.
- David Fronczak, Region 8 (CO, MT, ND, SD, UT, WY), U.S. EPA, 1595 Wynkoop Street, Mailcode 8SEM–EM–P, Denver, CO 80202–1129; (303) 312–6096.
- Eugenia Chow, Region 9 (AZ, CA, HI, NV, AS, GU, MP), U.S. EPA, 75 Hawthorne Street, Mailcode SFD 6–1, San Francisco, CA 94105 (415) 972–3160.
- Ken Marcy, Region 10 (AK, ID, OR, WA), U.S. EPA, 288 Martin Street, Suite 309, Blaine, WA 98230; (360) 366–8868.

You may also request copies from the EPA Headquarters or the regional dockets. An informal request, rather than a formal written request under the Freedom of Information Act, should be the ordinary procedure for obtaining copies of any of these documents. Please note that due to the difficulty of reproducing them, oversized maps may be viewed only in-person. The EPA dockets are not equipped to copy and mail out such maps, nor are they equipped to scan them for electronic distribution.

You may use the docket at *https://www.regulations.gov* to access documents in the Headquarters docket. Please note that there are differences between the Headquarters docket and the regional dockets, and those differences are outlined in this preamble above.

E. How do I submit my comments?

Follow the online instructions detailed above in the **ADDRESSES** section for submitting comments. Once submitted, comments cannot be edited or removed from the docket. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets.*

F. What happens to my comments?

The EPA considers all comments received during the comment period. Significant comments are typically addressed in a support document that the EPA will publish concurrently with the **Federal Register** document if, and when, the site is listed on the NPL.

G. What should I consider when preparing my comments?

Comments that include complex or voluminous reports, or materials prepared for purposes other than HRS scoring, should point out the specific information that the EPA should consider and how it affects individual HRS factor values or other listing criteria (*Northside Sanitary Landfill* v. *Thomas,* 849 F.2d 1516 (D.C. Cir. 1988)). The EPA will not address voluminous comments that are not referenced to the HRS or other listing criteria. The EPA will not address

comments unless they indicate which component of the HRS documentation record or what particular point in the EPA's stated eligibility criteria is at issue.

H. May I submit comments after the public comment period is over?

Generally, the EPA will not respond to late comments. The EPA can guarantee only that it will consider those comments postmarked by the close of the formal comment period. The EPA has a policy of generally not delaying a final listing decision solely to accommodate consideration of late comments.

I. May I view public comments submitted by others?

During the comment period, comments are placed in the Headquarters docket and are available to the public on an ''as received'' basis. A complete set of comments will be available for viewing in the regional dockets approximately one week after the formal comment period closes.

All public comments, whether submitted electronically or in paper form, will be made available for public viewing in the electronic public docket at *https://www.regulations.gov* as the EPA receives them and without change, unless the comment contains copyrighted material, CBI or other information whose disclosure is restricted by statute. Once in the public dockets system, select ''search,'' then key in the appropriate docket ID number.

J. May I submit comments regarding sites not currently proposed to the NPL?

In certain instances, interested parties have written to the EPA concerning sites that were not at that time proposed to the NPL. If those sites are later proposed to the NPL, parties should review their earlier concerns and, if still appropriate, resubmit those concerns for consideration during the formal comment period. Site-specific correspondence received prior to the period of formal proposal and comment will not generally be included in the docket.

II. Background

A. What are CERCLA and SARA?

In 1980, Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9601–9675 (''CERCLA'' or ''the Act''), in response to the dangers of uncontrolled releases or threatened releases of hazardous substances, and releases or substantial threats of releases into the environment of any pollutant or contaminant that may present an imminent or substantial danger to the public health or welfare. CERCLA was amended on October 17, 1986, by the Superfund Amendments and Reauthorization Act (''SARA''), Public Law 99–499, 100 Stat. 1613 *et seq.*

B. What is the NCP?

To implement CERCLA, the EPA promulgated the revised National Oil and Hazardous Substances Pollution Contingency Plan (''NCP''), 40 CFR part 300, on July 16, 1982 (47 FR 31180), pursuant to CERCLA section 105 and Executive Order 12316 (46 FR 42237, August 20, 1981). The NCP sets guidelines and procedures for responding to releases and threatened releases of hazardous substances or releases or substantial threats of releases into the environment of any pollutant or contaminant that may present an imminent or substantial danger to the public health or welfare. The EPA has revised the NCP on several occasions. The most recent comprehensive revision was on March 8, 1990 (55 FR 8666).

As required under section 105(a)(8)(A) of CERCLA, the NCP also includes ''criteria for determining priorities among releases or threatened releases throughout the United States for the purpose of taking remedial action and, to the extent practicable taking into account the potential urgency of such action, for the purpose of taking removal action.'' ''Removal'' actions are defined broadly and include a wide range of actions taken to study, clean up, prevent or otherwise address releases and threatened releases of hazardous substances, pollutants or contaminants (42 U.S.C. 9601(23)).

C. What is the National Priorities List (NPL)?

The NPL is a list of national priorities among the known or threatened releases of hazardous substances, pollutants or contaminants throughout the United States. The list, which is appendix B of the NCP (40 CFR part 300), was required under section 105(a)(8)(B) of CERCLA, as amended. Section 105(a)(8)(B) defines the NPL as a list of ''releases'' and the highest priority ''facilities'' and requires that the NPL be revised at least annually. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation to assess the nature and extent of public health and environmental risks associated with a release of hazardous substances, pollutants or contaminants. The NPL is only of limited significance, however, as it does not assign liability to any party or to the owner of any specific property. Also, placing a site on the NPL does not mean that any remedial or removal action necessarily need be taken.

For purposes of listing, the NPL includes two sections, one of sites that are generally evaluated and cleaned up by the EPA (the ''General Superfund section''), and one of sites that are owned or operated by other Federal agencies (the ''Federal Facilities section''). With respect to sites in the Federal Facilities section, these sites are generally being addressed by other Federal agencies. Under Executive Order 12580 (52 FR 2923, January 29, 1987) and CERCLA section 120, each Federal agency is responsible for carrying out most response actions at facilities under its own jurisdiction, custody or control, although the EPA is responsible for preparing a Hazard Ranking System (''HRS'') score and determining whether the facility is placed on the NPL.

D. How are sites listed on the NPL?

There are three mechanisms for placing sites on the NPL for possible remedial action (see 40 CFR 300.425(c) of the NCP): (1) A site may be included on the NPL if it scores sufficiently high on the HRS, which the EPA promulgated as appendix A of the NCP (40 CFR part 300). The HRS serves as a screening tool to evaluate the relative potential of uncontrolled hazardous substances, pollutants or contaminants to pose a threat to human health or the environment. On December 14, 1990 (55 FR 51532), the EPA promulgated revisions to the HRS partly in response to CERCLA section 105(c), added by SARA. On January 9, 2017 (82 FR 2760), a subsurface intrusion component was added to the HRS to enable the EPA to consider human exposure to hazardous substances or pollutants and contaminants that enter regularly occupied structures through subsurface intrusion when evaluating sites for the NPL. The current HRS evaluates four pathways: ground water, surface water, soil exposure and subsurface intrusion, and air. As a matter of agency policy, those sites that score 28.50 or greater on the HRS are eligible for the NPL. (2) Pursuant to 42 U.S.C. 9605(a)(8)(B), each state may designate a single site as its top priority to be listed on the NPL, without any HRS score. This provision of CERCLA requires that, to the extent practicable, the NPL include one facility designated by each state as the greatest danger to public health, welfare or the environment among known facilities in the state. This mechanism for listing is set out in the NCP at 40 CFR 300.425(c)(2). (3) The third mechanism for listing, included in the NCP at 40

CFR 300.425(c)(3), allows certain sites to be listed without any HRS score, if all of the following conditions are met:

- The Agency for Toxic Substances and Disease Registry (ATSDR) of the U.S. Public Health Service has issued a health advisory that recommends dissociation of individuals from the release.
- The EPA determines that the release poses a significant threat to public health.
- The EPA anticipates that it will be more cost-effective to use its remedial authority than to use its removal authority to respond to the release.

The EPA promulgated an original NPL of 406 sites on September 8, 1983 (48 FR 40658) and generally has updated it at least annually.

E. What happens to sites on the NPL?

A site may undergo remedial action financed by the Trust Fund established under CERCLA (commonly referred to as the ''Superfund'') only after it is placed on the NPL, as provided in the NCP at 40 CFR 300.425(b)(1). (''Remedial actions'' are those ''consistent with permanent remedy, taken instead of or in addition to removal actions. * * *'' 42 U.S.C. 9601(24).) However, under 40 CFR 300.425(b)(2) placing a site on the NPL ''does not imply that monies will be expended.'' The EPA may pursue other appropriate authorities to respond to the releases, including enforcement action under CERCLA and other laws.

F. Does the NPL define the boundaries of sites?

The NPL does not describe releases in precise geographical terms; it would be neither feasible nor consistent with the limited purpose of the NPL (to identify releases that are priorities for further evaluation), for it to do so. Indeed, the precise nature and extent of the site are typically not known at the time of listing.

Although a CERCLA ''facility'' is broadly defined to include any area where a hazardous substance has ''come to be located'' (CERCLA section 101(9)), the listing process itself is not intended to define or reflect the boundaries of such facilities or releases. Of course, HRS data (if the HRS is used to list a site) upon which the NPL placement was based will, to some extent, describe the release(s) at issue. That is, the NPL site would include all releases evaluated as part of that HRS analysis.

When a site is listed, the approach generally used to describe the relevant release(s) is to delineate a geographical area (usually the area within an installation or plant boundaries) and identify the site by reference to that area. However, the NPL site is not necessarily coextensive with the boundaries of the installation or plant, and the boundaries of the installation or plant are not necessarily the ''boundaries'' of the site. Rather, the site consists of all contaminated areas within the area used to identify the site, as well as any other location where that contamination has come to be located, or from where that contamination came.

In other words, while geographic terms are often used to designate the site (*e.g.,* the ''Jones Co. Plant site'') in terms of the property owned by a particular party, the site, properly understood, is not limited to that property (*e.g.,* it may extend beyond the property due to contaminant migration), and conversely may not occupy the full extent of the property (*e.g.,* where there are uncontaminated parts of the identified property, they may not be, strictly speaking, part of the ''site''). The ''site'' is thus neither equal to, nor confined by, the boundaries of any specific property that may give the site its name, and the name itself should not be read to imply that this site is coextensive with the entire area within the property boundary of the installation or plant. In addition, the site name is merely used to help identify the geographic location of the contamination; and is not meant to constitute any determination of liability at a site. For example, the name ''Jones Co. Plant site,'' does not imply that the Jones Company is responsible for the contamination located on the plant site.

The EPA regulations provide that the remedial investigation (''RI'') ''is a process undertaken . . . to determine the nature and extent of the problem presented by the release'' as more information is developed on site contamination, and which is generally performed in an interactive fashion with the feasibility Study (''FS'') (40 CFR 300.5). During the RI/FS process, the release may be found to be larger or smaller than was originally thought, as more is learned about the source(s) and the migration of the contamination. However, the HRS inquiry focuses on an evaluation of the threat posed and therefore the boundaries of the release need not be exactly defined. Moreover, it generally is impossible to discover the full extent of where the contamination ''has come to be located'' before all necessary studies and remedial work are completed at a site. Indeed, the known boundaries of the contamination can be expected to change over time. Thus, in most cases, it may be impossible to describe the boundaries of a release with absolute certainty.

Further, as noted previously, NPL listing does not assign liability to any party or to the owner of any specific property. Thus, if a party does not believe it is liable for releases on discrete parcels of property, it can submit supporting information to the agency at any time after it receives notice it is a potentially responsible party.

For these reasons, the NPL need not be amended as further research reveals more information about the location of the contamination or release.

G. How are sites removed from the NPL?

The EPA may delete sites from the NPL where no further response is appropriate under Superfund, as explained in the NCP at 40 CFR 300.425(e). This section also provides that the EPA shall consult with states on proposed deletions and shall consider whether any of the following criteria have been met:

(i) Responsible parties or other persons have implemented all appropriate response actions required;

(ii) All appropriate Superfund-financed response has been implemented and no further response action is required; or

(iii) The remedial investigation has shown the release poses no significant threat to public health or the environment and taking of remedial measures is not appropriate.

H. May the EPA delete portions of sites from the NPL as they are cleaned up?

In November 1995, the EPA initiated a policy to delete portions of NPL sites where cleanup is complete (60 FR 55465, November 1, 1995). Total site cleanup may take many years, while portions of the site may have been cleaned up and made available for productive use.

I. What is the Construction Completion List (CCL)?

The EPA also has developed an NPL construction completion list (''CCL'') to simplify its system of categorizing sites and to better communicate the successful completion of cleanup activities (58 FR 12142, March 2, 1993). Inclusion of a site on the CCL has no legal significance.

Sites qualify for the CCL when: (1) Any necessary physical construction is complete, whether or not final cleanup levels or other requirements have been achieved; (2) the EPA has determined that the response action should be limited to measures that do not involve construction (*e.g.,* institutional controls); or (3) the site qualifies for deletion from the NPL. For more

information on the CCL, see the EPA's internet site at *https://www.epa.gov/superfund/construction-completions-national-priorities-list-npl-sites-number.*

J. What is the Sitewide Ready for Anticipated Use measure?

The Sitewide Ready for Anticipated Use measure (formerly called Sitewide Ready-for-Reuse) represents important Superfund accomplishments and the measure reflects the high priority the EPA places on considering anticipated future land use as part of the remedy selection process. See Guidance for Implementing the Sitewide Ready-for-Reuse Measure, May 24, 2006, Office of Solid Waste and Emergency Response (OSWER) 9365.0–36. This measure applies to final and deleted sites where construction is complete, all cleanup goals have been achieved, and all institutional or other controls are in place. The EPA has been successful on many occasions in carrying out remedial actions that ensure protectiveness of human health and the environment for current and future land uses, in a manner that allows contaminated properties to be restored to environmental and economic vitality. For further information, please go to *https://www.epa.gov/superfund/about-superfund-cleanup-process#reuse.*

K. What is state/tribal correspondence concerning NPL listing?

In order to maintain close coordination with states and tribes in the NPL listing decision process, the EPA's policy is to determine the position of the states and tribes regarding sites that the EPA is considering for listing. This consultation process is outlined in two memoranda that can be found at the following website: *https://www.epa.gov/superfund/statetribal-correspondence-concerning-npl-site-listing.*

The EPA has improved the transparency of the process by which state and tribal input is solicited. The EPA is using the Web and where appropriate more structured state and tribal correspondence that (1) explains the concerns at the site and the EPA's rationale for proceeding; (2) requests an explanation of how the state intends to address the site if placement on the NPL is not favored; and (3) emphasizes the transparent nature of the process by informing states that information on their responses will be publicly available.

A model letter and correspondence between the EPA and states and tribes where applicable, is available on the EPA's website at *https://www.epa.gov/superfund/statetribal-correspondence-concerning-npl-site-listing.*

III. Contents of This Proposed Rule

A. Proposed Additions to the NPL

In this proposed rule, the EPA is proposing to add four sites to the NPL, all to the General Superfund section. All of the sites in this rulemaking are being proposed for NPL addition based on an HRS score of 28.50 or above with the exception of Fansteel Metals/FMRI which has been designated as the state's one-time top priority site per 40 CFR 300.425(c)(2).

The sites are presented in the table below.

GENERAL SUPERFUND SECTION

State	Site name	City/county
AZ	Lukachukai Mountains Mining District	Cove, Navajo Nation.
IN	Federated Metals Corp Whiting	Hammond.
LA	Capitol Lakes	Baton Rouge.
OK	Fansteel Metals/FMRI	Muskogee.

IV. 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 not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review.

B. Paperwork Reduction Act (PRA)

This action does not impose an information collection burden under the PRA. This rule does not contain any information collection requirements that require approval of the OMB.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities. This rule listing sites on the NPL does not impose any obligations on any group, including small entities. This rule also does not establish standards or requirements that any small entity must meet and imposes no direct costs on any small entity. Whether an entity, small or otherwise, is liable for response costs for a release of hazardous substances depends on whether that entity is liable under CERCLA 107(a). Any such liability exists regardless of whether the site is listed on the NPL through this rulemaking.

D. Unfunded Mandates Reform Act (UMRA)

This 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. This action imposes no enforceable duty on any state, local, or tribal governments or the private sector. Listing a site on the NPL does not itself impose any costs. Listing does not mean that the EPA necessarily will undertake remedial action. Nor does listing require any action by a private party, state, local, or tribal governments or determine liability for response costs. Costs that arise out of site responses result from future site-specific decisions regarding what actions to take, not directly from the act of placing a site on the NPL.

E. Executive Order 13132: Federalism

This rule 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 action does not have tribal implications as specified in Executive Order 13175. Listing a site on the NPL does not impose any costs on a tribe or require a tribe to take remedial action. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the 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 action is not subject to Executive Order 13045 because this action itself is procedural in nature (adds sites to a list) and does not, in and of itself, provide protection from environmental health and safety risks. Separate future regulatory actions are required for mitigation of environmental health and safety risks.

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

This 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 (NTTAA)

This rulemaking does not involve technical standards.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations because it does not affect the level of protection provided to human health or the environment. As discussed in section I.C. of the preamble to this action, the NPL is a list of national priorities. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation to assess the nature and extent of public health and environmental risks associated with a release of hazardous substances, pollutants or contaminants. The NPL is of only limited significance as it does not assign liability to any party. Also, placing a site on the NPL does not mean that any remedial or removal action necessarily need be taken.

List of Subjects in 40 CFR Part 300

Environmental protection, Air pollution control, Chemicals, Hazardous substances, Hazardous waste, Intergovernmental relations, Natural resources, Oil pollution, Penalties, Reporting and recordkeeping requirements, Superfund, Water pollution control, Water supply.

Barry N. Breen,

Acting Assistant Administrator, Office of Land and Emergency Management.

For the reasons set forth in the preamble, EPA proposes to amend 40 CFR part 300 as follows:

PART 300—NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN

■ 1. The authority citation for part 300 continues to read as follows:

Authority: 33 U.S.C. 1251 *et seq.;* 42 U.S.C. 9601–9657; E.O. 13626, 77 FR 56749, 3 CFR, 2013 Comp., p. 306; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; E.O. 12580, 52 FR 2923, 3 CFR, 1987 Comp., p. 193.

■ 2. Amend Table 1 of Appendix B to part 300 by adding the entries for ''AZ, Lukachukai Mountains Mining District'', ''IN, Federated Metals Corp Whiting'', ''LA, Capitol Lakes'', ''OK, and Fansteel Metals/FMRI'' in alphabetical order by State to read as follows:

Appendix B to Part 300—National Priorities List

TABLE 1—GENERAL SUPERFUND SECTION

State	Site name	City/County	Notes [a]
*	* * *	* * *	*
AZ	Lukachukai Mountains Mining District	Cove, Navajo Nation	
*	* * *	* * *	*
IN	Federated Metals Corp Whiting	Hammond	
*	* * *	* * *	*
LA	Capitol Lakes	Baton Rouge	
*	* * *	* * *	*
OK	Fansteel Metals/FMRI	Muskogee	S
*	* * *	* * *	*

[a] A = Based on issuance of health advisory by Agency for Toxic Substances and Disease Registry (if scored, HRS score need not be greater than or equal to 28.50).

* * * * *

[FR Doc. 2023–06233 Filed 3–28–23; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 79

[MB Docket No. 11–43; FCC 23–20; FR ID 133388]

Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: In this document, the Commission proposes to expand its support for individuals who are blind or visually impaired and ensure they have nationwide access to video programming by expanding its audio description requirements to additional market areas. Specifically, the Commission proposes to phase in an additional 10 designated market areas each year until audio description is available in all such market areas.

DATES: Comments are due on or before April 28, 2023; reply comments are due on or before May 15, 2023.

ADDRESSES: You may submit comments, identified by MB Docket No. 11–43, by any of the following methods:

- *Electronic Filers:* Comments may be filed electronically using the internet by accessing the ECFS: *http://apps.fcc.gov/ecfs/*.
- *Paper Filers:* Parties who choose to file by paper must file an original and one copy of each filing.

Filings can be sent by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 45 L Street NE, Washington, DC 20554.
- Effective March 19, 2020, and until further notice, the Commission no longer accepts any hand or messenger delivered filings. This is a temporary measure taken to help protect the health and safety of individuals, and to mitigate the transmission of COVID–19. See FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy, public notice, DA 20–304 (March 19, 2020).

People with Disabilities. To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an email to *fcc504@fcc.gov* or call the FCC's Consumer and Governmental Affairs Bureau at (202) 418–0530 (voice).

FOR FURTHER INFORMATION CONTACT: For additional information on this proceeding, contact Diana Sokolow, *Diana.Sokolow@fcc.gov,* of the Policy Division, Media Bureau, (202) 418–2120.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Further Notice of Proposed Rulemaking, FCC 23–20, adopted on March 16, 2023 and released on March 17, 2023. The full text of this document is available on the FCC's website at *https://docs.fcc.gov/public/attachments/FCC-23-20A1.pdf* or electronically in ASCII, Microsoft Word, and/or Adobe Acrobat via ECFS.

Synopsis

1. In the Further Notice of Proposed Rulemaking (FNPRM), the Commission proposes to expand its support for individuals who are blind or visually impaired and ensure they have nationwide access to video programming by expanding its audio description requirements to additional market areas. Consistent with the Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA), we propose to phase in an additional 10 designated market areas (DMAs) each year until audio description is available in all such market areas. The proposed expansion would help ensure that a greater number of individuals who are blind or visually impaired can be connected, informed, and entertained by television programming.

2. Audio description makes video programming more accessible to individuals who are blind or visually impaired through ''[t]he insertion of audio narrated descriptions of a television program's key visual elements into natural pauses between the program's dialogue.'' [1] The Commission's audio description rules currently require certain television broadcast stations and multichannel video programming distributors (MVPDs) to provide audio description for a portion of the video programming they distribute to consumers. Audio description is required in DMAs 1 through 60, pursuant to an order adopted by the Commission in 2011. In 2020, the Commission expanded the audio description requirements to DMAs 61 through 100 on a phased schedule that will be complete on January 1, 2024. In that Order, the Commission also committed to determining in 2023 whether to continue expanding the audio description requirements to an additional 10 DMAs per year. There are currently a total of 210 DMAs. Through this FNPRM, we seek comment on our proposal to expand the audio description requirements using a phased schedule until all DMAs are covered by the audio description rules. In particular, we seek comment on whether the costs associated with expansion beyond DMA 100 are reasonable and whether the consumer need for expansion outweighs such costs, including whether there are any unique circumstances applicable to these smaller markets from DMA 101 through DMA 210 that the Commission should consider. We also seek comment on what rules, procedures, or schedule adjustment the Commission could consider to balance or minimize such costs against the consumer benefits of providing nationwide audio description.

3. As required by section 202 of the CVAA, the Commission adopted rules in 2011 requiring certain television broadcast stations and MVPDs to provide audio description for a portion of the video programming that they offer to consumers on television. The current audio description rules require commercial television broadcast stations that are affiliated with one of the top four commercial television broadcast networks (ABC, CBS, Fox, and NBC) and are located in the top television markets to provide 50 hours of audio-described programming per calendar quarter during prime time or on children's programming, as well as an additional 37.5 hours of audio-described programming per calendar quarter at any time between 6 a.m. and 11:59 p.m.[2]

4. The CVAA directed the Commission to submit two reports to Congress related to audio description, and the second such report is relevant to this FNPRM. In the Second Report,

[1] *See* 47 CFR 79.3(a)(3). Audio description is typically provided through the use of a secondary audio stream, which allows the consumer to choose whether to hear the narration by switching from the main program audio to the secondary audio.

[2] 47 CFR 79.3(b)(1). The rules also require ''[t]elevision broadcast stations that are affiliated or otherwise associated with any television network [to] pass through audio description when the network provides audio description and the broadcast station has the technical capability necessary to pass through the audio description, unless it is using the technology used to provide audio description for another purpose related to the programming that would conflict with providing the audio description.'' *Id.* 79.3(b)(3).

the CVAA required the Commission to assess, among other topics, ''the potential costs to program owners, providers, and distributors in [DMAs] outside of the top 60 of creating [audio-described] programming'' and ''the need for additional described programming in [DMAs] outside the top 60.'' [3] The Bureau submitted the Second Report to Congress in October 2019, describing the consumer desire for application of the audio description rules outside the top 60 DMAs but stating that commenters did not offer ''detailed or conclusive information'' as to the costs of such an expansion or a station's ability to bear those costs. It thus deferred issuing a determination regarding whether any costs associated with the expansion would be reasonable, explaining that, ''[s]hould the Commission seek to expand the [audio] description requirements to DMAs outside the top 60, it will need to utilize the information contained in this Second Report, and any further information available to it at the time, to determine that 'the costs of implementing the [audio] description regulations to program owners, providers, and distributors in those additional markets are reasonable.' '' [4]

5. The CVAA provides the Commission with authority ''to phase in the [audio] description regulations for up to an additional 10 [DMAs] each year,'' ''based upon the findings, conclusions, and recommendations contained in the [Second Report],'' ''(I) if the costs of implementing the [audio] description regulations to program owners, providers, and distributors in those additional markets are reasonable, as determined by the Commission; and (II) except that the Commission may grant waivers to entities in specific [DMAs] where it deems appropriate.'' [5] Exercising this authority, the Commission adopted a phased expansion of the audio description rules, finding that the costs of the expansion to DMAs 61 through 100 are reasonable for program owners, providers, and distributors. The audio description requirements extended to DMAs 61 through 70 on January 1, 2021, to DMAs 71 through 80 on January 1, 2022, and to DMAs 81 through 90 on January 1, 2023. The requirements will extend to DMAs 91 through 100 on January 1, 2024. Thus far, the timetable for the phased expansion has been successful, with no requests for relief under either the rule governing exemptions due to economic burden or the more general waiver rule.

6. The *2020 Audio Description Order* also indicated that the Commission would consider in 2023 whether to continue expanding the audio description requirements to an additional 10 DMAs per year, after assessing the reasonableness of the associated costs. The Commission explained that deferring a determination on the application of the audio description rules beyond DMA 100 ''will best enable us to consider the unique circumstances that may be applicable'' to the smallest markets, and provides ''the additional benefit of . . . any additional information gleaned from [the] practical experience'' of expansion beyond DMA 60.

7. Consistent with the CVAA, we propose to continue phasing in the audio description requirements for an additional 10 DMAs each year until all 210 DMAs are covered, and we invite comment on this proposal. Specifically, we invite comment on whether the costs of implementing the audio description regulations in markets 101 through 210 are reasonable.

8. We seek comment on the benefits of expanding the audio description requirements to DMAs 101 through 210. The Second Report indicated that consumers seek expansion of the audio description requirements to additional DMAs, and we believe that even in the smallest DMAs, our proposal will provide significant benefits to consumers who are blind or visually impaired. As the Commission has previously stated, ''[i]t is indisputable that [audio] description enhances the accessibility of video programming to consumers who are blind or visually impaired.'' In addition to the benefits for consumers who are blind or visually impaired, when the Commission expanded the audio description requirements to DMAs 61 through 100, it found that ''consumers who are not blind or visually impaired and live in those markets also would benefit from the expansion, such as consumers with other sensory or cognitive impairments, individuals learning the language, and those who listen to video programming while multitasking.'' We invite comment on the benefits of the proposed expansion to consumers in DMAs 101 through 210. Commenters should provide specific data on the amount of audio-described programming currently available in DMAs 101 through 210, including comparing that data to the amount that would be available if the Commission were to expand the audio description requirements to such DMAs. We also invite commenters to discuss any other benefits of the proposed expansion.

9. We also seek comment on the costs of expanding the audio description requirements to DMAs 101 through 210. Specifically, the CVAA permits the Commission to extend the audio description requirements to additional DMAs ''if the costs of implementing the [audio] description regulations to program owners, providers, and distributors in those additional markets are reasonable, as determined by the Commission.'' When the Commission extended the audio description requirements to DMAs 61 through 100, it concluded that the costs of compliance were reasonable. We thus ask commenters to discuss whether the Commission's analysis in 2020 for DMAs 61–100 similarly applies today to DMAs 101 through 210. Specifically, have the costs of adding audio description to television programming, which held steady between 2017 and 2020, remained steady today? We encourage commenters to provide figures demonstrating the estimated costs of complying with the audio description regulations for program owners, providers, and distributors in DMAs 101 through 210.

10. We anticipate that any cost caused by application of the audio description requirements to additional DMAs will be minimized because covered broadcasters are already required to have the equipment and infrastructure needed to deliver a secondary audio stream for purposes of the emergency information requirements, without exception for technical capability or market size.[6] In addition, we anticipate that any such cost will be further minimized because network affiliates in all DMAs are already required to pass through the audio description they receive via a network feed, provided the station has the necessary technical capability and is not using the technology used to provide audio description for another purpose related to the programming that would conflict with providing the audio description. We seek comment on this analysis. How many broadcasters in DMAs 101 through 210 currently lack the equipment or infrastructure needed to deliver a secondary audio stream, and would the costs of implementing such

[3] 47 U.S.C. 613(f)(4)(C)(iii)(IV), (VII).

[4] Second Report at paragraph 28 (quoting 47 U.S.C. 613(f)(4)(C)(iv)(I)).

[5] 47 U.S.C. 613(f)(4)(C)(iv).

[6] The Commission's audio description rules define a video programming provider to include any video programming distributor, and the rules define a video programming distributor to include any Commission-licensed television broadcast station. 47 CFR 79.3(a)(2), (5). Accordingly, television broadcasters clearly fall within the statutory reference to program providers and distributors. 47 U.S.C. 613(f)(4)(C)(iv).

equipment or infrastructure be minimal? To the extent any broadcasters that currently lack the necessary equipment or infrastructure believe that the implementation costs would be significant, could this best be addressed through the existing process for exemptions due to economic burden?

11. As an alternative to expanding the audio description requirements to all DMAs 101 through 210, should the Commission consider phasing in a smaller subset of DMAs? If so, what would be the appropriate cutoff? Is there a certain DMA beyond which expansion of the audio description requirements would create unreasonable costs? Would this limitation mitigate the cost of expanding the audio description requirements? Should the Commission consider expanding to a smaller number of DMAs, such as five DMAs per year, in recognition of the fact that the markets are smaller? If so, why and what factors would support such a modification of the phased schedule? Would such modifications of the schedule mitigate the potential costs or burden of our proposal?

12. We invite comment on any other issues relevant to our analysis of the costs of creating audio-described programming in DMAs 101 through 210. For example, when the Commission expanded the audio description requirements to DMAs 61 through 100, it ''sought comment on several additional issues related to analyzing the costs, including information on the differing costs faced by network affiliates that receive programming via a network feed as compared to other network affiliates; whether there are any network affiliates in any DMA that do not receive programming via a network feed; whether network affiliated stations in markets 61 through 100 would be able to satisfy the audio description requirements entirely by using the programming they receive via a network feed; and whether there are differing costs incurred by stations owned by large station group owners as compared to smaller station group owners or single stations.'' However, commenters did not address these issues in the record at that time. To the extent any such issues are relevant to our proposed extension of the audio description requirements to DMAs 101 through 210, we invite comment.

13. If the Commission determines that the costs of implementing the audio description regulations to program owners, providers, and distributors in DMAs 101 through 210 are ''reasonable,'' we invite comment on the compliance deadline for the expansion. In 2020, the Commission adopted an audio description phase-in that will conclude with DMAs 91 through 100 on January 1, 2024. Accordingly we propose to continue the phase-in with DMAs 101 through 110 on January 1, 2025, extending to 10 additional DMAs per year until the phase-in concludes with DMAs 201 through 210 on January 1, 2035, consistent with the expansion allowable under the CVAA. We invite comment on whether this approach, which provides the smallest DMAs with the longest timeframe for compliance, provides entities with sufficient time for compliance.

14. We seek comment on whether any extension of the rules to additional DMAs should be based on an updated Nielsen determination, consistent with Commission precedent and the CVAA, or whether we should consider other metrics. When the Commission expanded the application of the rules from the top 25 to the top 60 markets beginning on July 1, 2015, it did so based on updated Nielsen DMA ratings as of January 1, 2015. Similarly, when the Commission again expanded the application of the rules to the top 100 markets beginning January 1, 2021, it did so based on updated Nielsen DMA ratings as of January 1, 2020. We propose to now update our audio description rules to base the phased expansion as well as the current requirements on updated Nielsen DMA ratings as of January 1, 2023, and we invite comment on this proposal. We note that television broadcast stations in the top 90 markets are subject to the audio description requirements today. If we utilize updated Nielsen figures, what should be the compliance deadline for stations in a DMA that was not in the top 90 markets as of January 1, 2020, but is within the top 90 markets as of January 1, 2023? In the *2020 Audio Description Order,* we provided that stations in a DMA that was not in the top 60 markets as of January 1, 2015, but was within the top 60 markets as of January 1, 2020, must come into compliance with the audio description rules by the compliance deadline for DMAs 61 through 70. Similarly, should we require here that any such station come into compliance with the audio description rules by the next phased compliance deadline, which will be the January 1, 2024 deadline applicable to DMAs 91 through 100? Should that next phased compliance deadline be based on the updated Nielsen DMA rankings, in addition to any subsequent compliance deadlines that we adopt as a result of this FNPRM? As in 2020, we expect that ''using updated Nielsen data will facilitate the efficient roll out of audio description obligations to more television households,'' and we invite comment on this analysis.

15. If the Commission expands the audio description rules to additional DMAs, we propose that § 79.3(d) of our rules will govern any petitions for exemption due to economic burden. The audio description rules permit covered entities to petition the Commission for a full or partial exemption from the requirements upon a showing that the requirements are economically burdensome.[7] Although we propose that § 79.3(d) will continue to apply to instances in which an entity seeks to demonstrate that the extension to additional DMAs is economically burdensome, we recognize that the CVAA also provides that if an expansion of the audio description rules to additional DMAs occurs, ''the Commission may grant waivers to entities in specific [DMAs] where it deems appropriate.'' Section 1.3 of the Commission's rules governs waivers of the Commission's rules generally. Accordingly, to the extent a broadcaster subject to the extension believes it needs relief due to some reason other than economic burden, we propose that it may seek a waiver under § 1.3. We tentatively conclude that §§ 79.3(d) and 1.3 provide a sufficient mechanism for entities seeking relief from any expansion of the audio description rules to additional DMAs, and we invite comment on this conclusion.[8]

16. We seek information on whether there is additional information garnered from the practical experience of expanding to DMAs 61 through 100 that may inform our decision on whether to

[7] *See* 47 CFR 79.3(d). The term ''economically burdensome'' means imposing significant difficulty or expense, and the Commission considers the following factors in determining whether the requirements for audio description would be economically burdensome: (i) the nature and cost of providing audio description of the programming; (ii) the impact on the operation of the video programming provider; (iii) the financial resources of the video programming provider; and (iv) the type of operations of the video programming provider. *Id.* 79.3(d)(2)(i) through (iv). In addition, the Commission considers any other factors the petitioner deems relevant to the determination and any available alternative that might constitute a reasonable substitute for the audio description requirements, and it evaluates economic burden with regard to the individual outlet. *Id.* 79.3(d)(3). In the first audio description report that the Commission submitted to Congress in accordance with the CVAA, the Media Bureau stated its belief ''that the ability to seek an exemption on the basis of economic burden should alleviate the potential for undue cost burdens on covered entities, particularly when the rules go into effect for broadcast stations in television markets ranked 26 through 60 in 2015.''

[8] We note additionally that we have not received any requests for relief under either § 79.3(d) or § 1.3 resulting from the expansion to DMAs 61 through 100.

expand our requirements to DMAs 101 through 210. We also seek comment on whether there are any other issues with respect to our proposal to extend the audio description rules to additional DMAs of which we should be aware.

17. *Digital Equity and Inclusion.* Finally, the Commission, as part of its continuing effort to advance digital equity for all,[9] including people of color, persons with disabilities, persons who live in rural or Tribal areas, and others who are or have been historically underserved, marginalized, or adversely affected by persistent poverty or inequality, invites comment on any equity-related considerations [10] and benefits (if any) that may be associated with the proposals and issues discussed herein. Specifically, we seek comment on how our proposals may promote or inhibit advances in diversity, equity, inclusion, and accessibility, as well the scope of the Commission's relevant legal authority.

18. *Initial Regulatory Flexibility Analysis.* As required by the Regulatory Flexibility Act of 1980, as amended (RFA), the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) concerning the possible significant economic impact on small entities by the policies and rules proposed in the Further Notice of Proposed Rulemaking (FNPRM). Written public comments are requested on the IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments indicated on the first page of the FNPRM. The Commission will send a copy of the FNPRM, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA). In summary, the FNPRM proposes to expand the Commission's support for individuals who are blind or visually impaired and ensure they have nationwide access to video programming by expanding the Commission's audio description requirements to additional market areas. Consistent with the CVAA, the Commission proposes to phase in an additional 10 DMAs each year until audio description is available in all such market areas. There are currently 210 DMAs. The proposed expansion would help ensure that a greater number of individuals who are blind or visually impaired can be connected, informed, and entertained by television programming. The proposed action is authorized pursuant to the Twenty-First Century Communications and Video Accessibility Act of 2010, Public Law 111–260, 124 Stat. 2751, and section 713 of the Communications Act of 1934, as amended, 47 U.S.C. 613. The types of small entities that may be affected by the proposals contained in the FNPRM fall within the following categories: Television Broadcasting, Wired Telecommunications Carriers, Cable and Other Subscription Programming, Cable Companies and Systems (Rate Regulation), Cable System Operators (Telecom Act Standard), and Direct Broadcast Satellite (DBS) Service.

19. The projected reporting, recordkeeping, and other compliance requirements are as follows. The FNPRM proposes phasing in the existing audio description requirements for an additional 10 DMAs each year, beginning with DMAs 101 through 110 on January 1, 2025 and continuing until all 210 DMAs are covered, which will be on January 1, 2035. The substance of the audio description requirements would not change, but rather, this would be an expansion of the DMAs in which broadcast television stations are required to comply with the requirements. In determining the deadline applicable to each DMA, the FNPRM proposes that the Commission should base the extension on an updated Nielsen determination. Finally, if the Commission expands the audio description requirements to additional DMAs, the FNPRM proposes that § 79.3(d) of the Commission's rules will govern any petitions for exemption due to economic burden, and the FNPRM also states that § 1.3 of the Commission's rules governs waivers of the Commission's rules generally. There is no overlap with other regulations or laws.

20. The FNPRM focuses on engaging in a cost-benefit analysis to determine the effects the expansion would have. It invites comment on whether the costs of implementing the audio description regulations in markets 101 through 210 are reasonable. The FNPRM explains that we anticipate any cost would be minimized because covered broadcasters are already required to have the equipment and infrastructure needed to deliver a secondary audio stream for purposes of the emergency information requirements, without exception for technical capability or market size. In addition, it states that we anticipate that any cost would be further minimized because network affiliates in all DMAs are already required to pass through the audio description they receive via a network feed, provided the station has the necessary technical capability and is not using the technology used to provide audio description for another purpose related to the programming that would conflict with providing the audio description. The FNPRM states that even in the smallest DMAs, the Commission believes that the proposal will provide significant benefits to consumers who are blind or visually impaired. Comments on the FNPRM will help us evaluate the benefits and costs of the proposed expansion and whether the costs would be reasonable. The Commission has attempted to minimize the impact of the rules on small entities, and it invites comment on alternative approaches.

21. *Paperwork Reduction Act.* This document does not contain proposed information collection(s) subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104–13.[11] In addition, therefore, it does not contain any proposed new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107–198, *see* 44 U.S.C. 3506(c)(4).

22. *Ex Parte Rules—Permit-But-Disclose.* This proceeding shall be treated as a ''permit-but-disclose'' proceeding in accordance with the Commission's ex parte rules.[12] Persons making ex parte presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral ex parte presentations are reminded that memoranda summarizing the

[9] Section 1 of the Communications Act of 1934 as amended provides that the FCC ''regulat[es] interstate and foreign commerce in communication by wire and radio so as to make [such service] available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex.'' 47 U.S.C. 151.

[10] The term ''equity'' is used here consistent with Executive Order 13985 as the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality. *See* Exec. Order No. 13985, 86 FR 7009, Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (January 20, 2021).

[11] If the Commission adopts its proposal to extend the audio description requirements to additional DMAs, it will file a non-substantive modification to the information collection that contains § 79.3 (OMB 3060–1148) to clarify that the audio description requirements have been extended to additional DMAs.

[12] 47 CFR 1.1200 *et seq.*

presentation must (1) list all persons attending or otherwise participating in the meeting at which the ex parte presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during ex parte meetings are deemed to be written ex parte presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written ex parte presentations and memoranda summarizing oral ex parte presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (*e.g.,* .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's ex parte rules.

23. *Filing Requirements—Comments and Replies.* Pursuant to §§ 1.415 and 1.419 of the Commission's rules, 47 CFR 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). *See Electronic Filing of Documents in Rulemaking Proceedings,* 63 FR 24121 (1998).

24. The proposed action is authorized pursuant to the Twenty-First Century Communications and Video Accessibility Act of 2010, Public Law 111–260, 124 Stat. 2751, and the authority contained in section 713 of the Communications Act of 1934, as amended, 47 U.S.C. 613.

List of Subjects in 47 CFR Part 79

Communications equipment, Television broadcasters.

Federal Communications Commission.

Marlene Dortch,

Secretary, Office of the Secretary.

Proposed Rules

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR part 79 as follows:

PART 79—ACCESSIBILITY OF VIDEO PROGRAMMING

■ 1. The authority citation for part 79 continues to read as follows:

Authority: 47 U.S.C. 151, 152(a), 154(i), 303, 307, 309, 310, 330, 544a, 613, 617.

■ 2. Amend § 79.3 by revising paragraph (b)(1) to read as follows:

§ 79.3 Audio description of video programming.

* * * * *

(b) * * *

(1) Commercial television broadcast stations that are affiliated with one of the top four commercial television broadcast networks (ABC, CBS, Fox, and NBC), and that are licensed to a community located in the top 90 DMAs, as determined by The Nielsen Company as of January 1, 2023, must provide 50 hours of audio description per calendar quarter, either during prime time or on children's programming, and 37.5 additional hours of audio description per calendar quarter between 6 a.m. and 11:59 p.m. local time, on each programming stream on which they carry one of the top four commercial television broadcast networks. If a previously unaffiliated station in one of these markets becomes affiliated with one of these networks, it must begin compliance with these requirements no later than three months after the affiliation agreement is finalized. On January 1, 2024, and on January 1 each year thereafter until January 1, 2035, the requirements of this paragraph (b)(1) shall extend to the next 10 largest DMAs as determined by The Nielsen Company as of January 1, 2023;

* * * * *

[FR Doc. 2023–06527 Filed 3–28–23; 8:45 am]

BILLING CODE 6712–01–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 665

[Docket No.230323–0083; RTID 0648–XC461]

Pacific Island Pelagic Fisheries; 2023 U.S. Territorial Longline Bigeye Tuna Catch Limits

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Proposed specifications; request for comments.

SUMMARY: NMFS proposes a 2023 limit of 2,000 metric tons (t) of longline-caught bigeye tuna for each U.S. Pacific territory (American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands (CNMI), collectively ''the territories''). NMFS would allow each territory to allocate up to 1,500 t to U.S. longline fishing vessels through specified fishing agreements that meet established criteria. However, the overall allocation limit among all territories may not exceed 3,000 t. As an accountability measure, NMFS would monitor, attribute, and restrict (if necessary) catches of longline-caught bigeye tuna, including catches made under a specified fishing agreement. The proposed catch limits and accountability measures would support the long-term sustainability of fishery resources of the U.S. Pacific Islands.

DATES: NMFS must receive comments by April 28, 2023.

ADDRESSES: You may submit comments on this document, identified by NOAA–NMFS–2022–0117, by either of the following methods:

- *Electronic Submission:* Submit all electronic public comments via the Federal e-Rulemaking Portal. Go to *https://www.regulations.gov* and enter NOAA–NMFS–2022–0117 in the Search box. Click on the ''Comment'' icon, complete the required fields, and enter or attach your comments.
- *Mail:* Send written comments to Sarah Malloy, Acting Regional Administrator, NMFS Pacific Islands Region (PIR), 1845 Wasp Blvd., Bldg. 176, Honolulu, HI 96818.

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).

Pursuant to the National Environmental Policy Act, the Western Pacific Fishery Management Council (Council) and NMFS prepared a 2019 environmental assessment (EA), a 2020 supplemental environmental assessment (SEA), and 2020, 2021, and 2022 supplemental information reports (SIR) that support this proposed action. The EA, SEA, and SIRs are available at *https://www.regulations.gov,* or from the Council, 1164 Bishop St., Suite 1400, Honolulu, HI 96813, telephone: 808–522–8220, fax: 808–522–8226, *https://www.wpcouncil.org.*

FOR FURTHER INFORMATION CONTACT: Keith Kamikawa, NMFS PIRO Sustainable Fisheries, 808–725–5177.

SUPPLEMENTARY INFORMATION: NMFS proposes to specify a 2023 catch limit of 2,000 t of longline-caught bigeye tuna for each U.S. Pacific territory (American Samoa, Guam, and the CNMI). NMFS would also authorize each U.S. Pacific territory to allocate up to 1,500 t of its 2,000 t bigeye tuna limit, not to exceed a 3,000 t total annual allocation limit among all the territories, to U.S. longline fishing vessels that are permitted to fish under the Fishery Ecosystem Plan for Pelagic Fisheries of the Western Pacific (FEP). Those vessels must be identified in a specified fishing agreement with the applicable territory. The Council recommended these specifications. The proposed catch limits and accountability measures are identical to those that NMFS has specified for U.S. Pacific territories in each year since 2014. The proposed individual territorial allocation limit of 1,500 t is identical to what NMFS specified for 2020, 2021, and 2022. The overall allocation limit among all of the territories may not exceed 3,000 t for the year, which is consistent with previous years. NMFS has determined that the existing EA and SEA adequately address the potential impacts on the human environment by the proposed action, and that no additional analyses are required.

NMFS will monitor catches of longline-caught bigeye tuna by the longline fisheries of each U.S Pacific territory, including catches made by U.S. longline vessels operating under specified fishing agreements. The criteria that a specified fishing agreement must meet, and the process for attributing longline-caught bigeye tuna, will follow the procedures in 50 CFR 665.819. When NMFS projects that a territorial catch or allocation limit will be reached, NMFS would, as an accountability measure, prohibit the catch and retention of longline-caught bigeye tuna by vessels in the applicable U.S. Pacific territory (if the territorial catch limit is projected to be reached), and/or vessels in a specified fishing agreement (if the allocation limit is projected to be reached).

NMFS will consider public comments on this proposed action and will announce the final specifications in the **Federal Register**. NMFS also invites public comments that address the impact of this proposed action, if any, on cultural fishing in American Samoa.

NMFS must receive any comments on this proposed action by the date provided in the **DATES** heading. NMFS will not consider any comments not postmarked or otherwise transmitted by that date. Regardless of the final specifications, all other existing management measures will continue to apply in the longline fishery.

Classification

Pursuant to section 304(b)(1)(A) of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), the NMFS Assistant Administrator has determined that this proposed specification is consistent with the FEP, other provisions of the Magnuson-Stevens Act, and other applicable law, subject to further consideration after public comment.

Certification of Finding of No Significant Impact on Substantial Number of Small Entities

The Chief Counsel for Regulation for the Department of Commerce has certified to the Chief Counsel for Advocacy of the Small Business Administration that these proposed specifications, if adopted, would not have a significant economic impact on a substantial number of small entities.

The proposed action would specify a 2023 limit of 2,000 metric tons (t) of longline-caught bigeye tuna for each U.S. Pacific territory (American Samoa, Guam, and the CNMI). NMFS would also allow each territory to allocate up to 1,500 t of its 2,000 t limit, not to exceed an overall allocation limit of 3,000 t, to U.S. longline fishing vessels in a specified fishing agreement that meets established criteria set forth in 50 CFR 665.819. As an accountability measure, NMFS would monitor, attribute, and restrict (if necessary) catches of longline-caught bigeye tuna by vessels in the applicable U.S. territory (if the territorial catch limit is projected to be reached), or by vessels operating under the applicable specified fishing agreement (if the allocation limit is projected to be reached). Payments under the specified fishing agreements support fisheries development in the U.S. Pacific territories and the long-term sustainability of fishery resources of the U.S. Pacific Islands.

This proposed action would apply directly to longline vessels that hold Federal permits under the FEP, specifically Hawaii, American Samoa, and Western Pacific General permits. In 2021, of the 164 allowable Hawaii permits, 146 were assigned to vessels active in the fishery; 24 of those vessels were dual-permitted with both Hawaii and American Samoa permits. Forty-four (44) vessels had American Samoa longline permits, with 11 active in the fishery and landing catch in American Samoa. There are no active vessels with Western Pacific General permits.

Based on dealer data collected by the State of Hawaii and the Western Pacific Fisheries Information Network, Hawaii longline vessels landed approximately 14,061 t of pelagic fish valued at $124.4 million in 2021. With 146 vessels making either a deep- or shallow-set trip in 2021, the ex-vessel value of pelagic fish caught by Hawaii-based longline fisheries averaged almost $852,055 per vessel. In 2021, American Samoa-based longline vessels pelagic fish landings were valued at $2.5 million; albacore made up the largest proportion of pelagic longline commercial landings. With 11 active longline vessels in 2021, the ex-vessel value of pelagic fish caught by the American Samoa fishery averaged almost $227,273 per vessel.

NMFS has established a small business size standard for businesses, including their affiliates, whose primary industry is commercial fishing (see 50 CFR 200.2). A business primarily engaged in commercial fishing (NAICS code 11411) is classified as a small business if it is independently owned and operated, is not dominant in its field of operation (including its affiliates), and has combined annual receipts not in excess of $11 million for all its affiliated operations worldwide. Based on available information, NMFS has determined that all vessels permitted federally under the Pelagic FEP are small entities, *i.e.,* they are engaged in the business of fish harvesting (NAICS 114111), are independently owned or operated, are not dominant in their field of operation, and have annual gross receipts not in excess of $11 million. Even though this

proposed action would apply to a substantial number of vessels, the implementation of this action would not result in significant adverse economic impact to individual vessels. The proposed action would potentially benefit the Hawaii longline fishermen by allowing them to fish under specified fishing agreements with a territory, which could extend fishing effort for bigeye tuna in the western Pacific and provide more bigeye tuna for markets in Hawaii and elsewhere.

In accordance with Federal regulations at 50 CFR part 300, subpart O, vessels that possess both an American Samoa and Hawaii longline permit are not subject to the U.S bigeye tuna limit. Therefore, these vessels may retain bigeye tuna and land fish in Hawaii after the date NMFS projects the fishery would reach that limit. Further, catches of bigeye tuna made by such vessels are attributed to American Samoa, provided the fish was not caught in the U.S. Exclusive Economic Zone around Hawaii.

The 2023 U.S. bigeye tuna catch limit in the western and central Pacific Ocean (WCPO) will be 3,554 t, which is subject to correction for any overage in 2022 as that fishing data becomes available. In 2022, NMFS received two specified fishing agreements, the first between American Samoa and the Hawaii Longline Association (HLA) and the second between the CNMI and HLA. Each agreement included an allocation of 1,500 t of bigeye tuna to vessels identified in the agreements. NMFS began allocating catches to American Samoa on August 25, 2022, prior to the U.S. fishery reaching the WCPO bigeye tuna catch limit. Based on logbooks submitted by longline vessels, NMFS forecasted the American Samoa allocation would be reached by November 28, 2022. In accordance with regulations at 50 CFR 665.819(c)(9)(ii), NMFS began attributing 2022 catch to the CNMI and the CNMI–HLA agreement on November 21, 2022, which is 7 days prior to November 28, 2022. These combined measures, including the remaining available U.S limit and specified fishing agreements, enabled the U.S. fishery to fish through the end of 2022.

In 2023, as with prior years, under this proposed action Hawaii longline vessels could enter into one or more fishing agreements with participating territories. This would enhance the ability of these vessels to extend fishing effort in the WCPO after reaching the 2023 U.S. limit and provide more bigeye tuna for markets in Hawaii. Providing the opportunity to land bigeye tuna in Hawaii in the last quarter of the year when market demand is generally high will result in positive economic benefits for fishery participants and net benefits to the Nation. Allowing participating territories to enter into specified fishing agreements under this action is consistent with the Western and Central Pacific Fisheries Commission (WCPFC) conservation and management objectives for bigeye tuna in Conservation and Management Measure 2018–01, and benefits the territories by providing funds for territorial fisheries development projects. Establishing a 2,000 t longline limit for bigeye tuna, where territories are not subject to WCPFC longline limits, is not expected to adversely affect vessels based in the territories.

Historical catches of bigeye tuna by the American Samoa longline fleet have been less than 2,000 t, including the catch by vessels based in American Samoa, catch by dual American Samoa/Hawaii permitted vessels that land their catch in Hawaii, and catch attributed to American Samoa from U.S. vessels under specified fishing agreements. Longline fishing has not occurred since 2011 in Guam or the CNMI.

Under the proposed action, longline fisheries managed under the FEP are not expected to expand substantially and are not expected to change the manner in which they are currently conducted (*i.e.,* area fished, number of vessels and trips, number and depth of hooks, or deployment techniques).

The proposed action does not duplicate, overlap, or conflict with other Federal rules and is not expected to have significant impact on small organizations or government jurisdictions. There would be little, if any, disproportionate adverse economic impacts from the proposed action based on gear type or relative vessel size. The proposed action also will not place a substantial number of small entities, or any segment of small entities, at a significant competitive disadvantage to large entities.

For the reasons above, NMFS does not expect the proposed action to have a significant economic impact on a substantial number of small entities. As such, an initial regulatory flexibility analysis is not required and none has been prepared.

This action is exempt from review under Executive Order 12866.

This proposed rule contains no information collection requirements under the Paperwork Reduction Act of 1995.

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

Dated: March 23, 2023.

Samuel D. Rauch, III,

Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

[FR Doc. 2023–06448 Filed 3–28–23; 8:45 am]

BILLING CODE 3510–22–P

Notices

Federal Register
Vol. 88, No. 60
Wednesday, March 29, 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

Agricultural Marketing Service

[Doc. No. AMS–FGIS–22–0095]

RIN 0581–AD94

2023 Rates for Grain Inspection Services Under the United States Grain Standards Act

AGENCY: Agricultural Marketing Service, Department of Agriculture (USDA).

ACTION: Notice.

SUMMARY: The Agricultural Marketing Service (AMS) is announcing the 2023 rates it will charge for official inspection and weighing services, supervision of official inspection and weighing services, and miscellaneous fees for other services performed under the United States Grain Standards Act, as amended. This action publishes the annual review of fees and the resulting fees.

DATES: Applicable April 1, 2023.

ADDRESSES: Prospective customers can find the fee scheduled posted on the Agency's public website: *https://www.ams.usda.gov/about-ams/fgis-program-directives.*

FOR FURTHER INFORMATION CONTACT: Denise Ruggles, FGIS Executive Program Analyst, USDA AMS; Telephone: 816–702–3897; Email: *Denise.M.Ruggles@usda.gov.*

SUPPLEMENTARY INFORMATION: The United States Grain Standards Act (USGSA) provides the Secretary of Agriculture with the authority to charge and collect reasonable fees to cover the costs of performing official services and costs associated with managing the program. The regulations require that Federal Grain Inspection Service (FGIS) annually review the national and local tonnage fees, supervision fee, and fees for service (7 CFR 800.71).

Overview of Schedule A (Official Inspection and Weighing Services) Fee Calculations

The USGSA and its implementing regulations (7 CFR 800.71(a)(1)) require FGIS to maintain and operating reserve not less than 3 and not more than 6 months. To comply with this requirement, FGIS conducts an annual review of its tonnage fees and operating reserves. Tonnage fees are calculated according to 7 CFR 800.71(b)(1). After calculating the tonnage fees, FGIS reviews the amount of funds in the operating reserve at the end of the fiscal year (FY2022 in this case) to ensure that it has 4½ months of operating expenses. FGIS uses 4.5 months of expenses as its target amount because section 800.71(b)(3) of the regulations identifies 4.5 months as the trigger for whether FGIS should make adjustments to its fees. If the operating reserve has more, or less than 4½ months of operating expenses, then FGIS must adjust all Schedule A fees. For each $1,000,000, rounded down, that the operating reserve varies from the target of 4½ months, FGIS will adjust all Schedule A fees by 2 percent. If the operating reserve exceeds the target, all Schedule A fees will be reduced. If the operating reserve does not meet the target, all Schedule A fees will be increased. The maximum annual increase or decrease in fees is 5 percent (7 CFR 800.71(b)(3)(i)–(ii)).

Tonnage fees for the 5-year rolling average tonnage were calculated on the previous 5 fiscal years (2018, 2019, 2020, 2021, and 2022). Tonnage fees consist of the national tonnage fee and local tonnage fee and are calculated and rounded to the nearest $0.001 per metric ton.

Calculation of national tonnage fee. The national tonnage fee is the national program administrative costs for the previous fiscal year divided by the average yearly tons of export grain officially inspected and/or weighed by delegated States and designated agencies, excluding land carrier shipments to Canada and Mexico, and outbound grain officially inspected and/or weighed by FGIS during the previous 5 fiscal years.

The fiscal year 2023 national tonnage fee, prior to the operating reserve review, is $0.031 per metric ton. The calculation of this fee is based on FY2022 national administrative costs of $3,793,021, divided by 5-year rolling tonnage average of 121,598,996.

TABLE 1—NATIONAL TONNAGE INSPECTED

Fiscal year	Metric tons
2018	129,687,652
2019	107,896,235
2020	110,090,771
2021	136,574,792
2022	123,745,530
5-year Rolling Average	121,598,996

Calculation of local tonnage fee. The local tonnage fee is the field office administrative costs for the previous fiscal year divided by the average yearly tons of outbound grain officially inspected and/or weighed by FGIS field offices during the previous 5 fiscal years.

TABLE 2—LOCAL TONNAGE INSPECTED BY FIELD OFFICE

Field office	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	5-year rolling average
New Orleans	66,996,126	57,807,378	59,768,303	72,482,289	68,880,711	65,186,961
League City	8,424,216	7,939,994	9,318,595	12,877,525	8,335,121	9,379,090
Pacific Northwest	4,643,241	2,530,648	3,331,672	4,136,482	2,720,001	3,472,409
Toledo	1,802,762	1,597,584	948,840	1,154,856	1,191,938	1,339,196

The local field office administrative costs for fiscal year 2022 and the fiscal year 2023 calculated local field office tonnage fee, prior to the operating reserve review, are as follows:

TABLE 3—LOCAL ADMINISTRATIVE COSTS AND CALCULATED LOCAL TONNAGE FEE BY FIELD OFFICE

Field office	FY 2022 local administrative costs	Calculated FY 2023 local tonnage fee
New Orleans	$1,372,632	$0.021
League City	665,113	0.071
Pacific Northwest	414,143	0.119
Toledo	354,073	0.264

Operating reserve. In order to maintain an operating reserve that is not less than 3 and not more than 6 months of operating expenses, FGIS reviewed the value of the operating reserve at the end of FY 2022 to ensure that an operating reserve equivalent to 4½ months of operating expenses is maintained.

The program operating reserve at the end of fiscal year 2022 was $3,036,951, with a monthly operating expense of $2,983,587. The target of 4.5 months of operating reserve is $13,426,143. Therefore, the operating reserve is less than 4.5 times the monthly operating expenses by $10,389,192. For each $1,000,000, rounded down, above the target level, all Schedule A fees must be increased by 2 percent. The operating reserve is $10.4 million below the target level, implying a 20 percent increase in fees is required. However, section 800.71(b)(3)(i) limits annual fee changes to 5 percent, which will not increase the operating reserve to the minimum statutory amount of 3 times the monthly operating expenses. In addition to this fee adjustment, and pursuant to section 800.71(c) of the regulations and § 7(j)(4) of the USGSA, FGIS is reviewing all fees to ensure they reflect the true costs of providing and supervising official service.

In this notice for 2023, FGIS is increasing all the 2022 Schedule A fees for service in Schedule A in paragraph (a)(1) by 5 percent, including calculated fiscal year 2023 national and local tonnage fees. All Schedule A fees for service are rounded to the nearest $0.10, except for fees based on tonnage or hundredweight. Schedule A fees will be outlined in FGIS Directive 9180.74 and published on the agency's public website. For example, national and local tonnage fees are adjusted as follows:

TABLE 4—NATIONAL TONNAGE FEE WITH OPERATING RESERVE ADJUSTMENT AND FY 2022 FEE

Fee description	Calculation with operating reserve adjustment	Calculated FY 2023 tonnage fee	FY 2022 tonnage fee
National (Delegated States/Designated Agencies).	$0.031 plus 5% increase ($0.002) equals $0.033	$0.033	$0.057

TABLE 5—FIELD OFFICE TONNAGE FEE WITH OPERATING RESERVE ADJUSTMENT AND FY 2022 FEE

Fee description	Calculation with operating reserve adjustment	Calculated FY 2023 tonnage fee (national + local)	FY 2022 tonnage fee
New Orleans	local fee $0.021 plus 5% increase ($0.001) equals $0.022	$0.055	$0.077
League City	local fee 0.071 plus 5% increase (0.004) equals 0.075	0.108	0.102
Pacific Northwest	local fee 0.119 plus 5% increase (0.006) equals 0.125	0.158	0.198
Toledo	local fee 0.264 plus 5% increase (0.013) equals 0.277	0.310	0.181

7 CFR 800.71(a)(2) Schedule B Calculations

FGIS calculates the supervision tonnage fee using the prior year's actual costs and the 5-year average tonnage of domestic U.S. grain shipments inspected, weighed, or both, including land carrier shipments to Canada and Mexico.

Operating reserve adjustment. In order to maintain an operating reserve not less than 3 and not more than 6 months, FGIS reviewed the value of the operating reserve at the end of FY 2022 to ensure that an operating reserve of 6 months is maintained.

The operating reserve adjustment is the difference between FY 2022 ending reserves and the operating reserve threshold, which is equivalent to 6 months of supervisory costs. FY 2022 supervision costs were $1,227,210. The operating reserve threshold for FY 2023 is calculated by dividing FY 2022 supervision costs by 2 ($1,227,210/2 = $613,605). FY 2022 operating reserve ending balance ($1,201,070) exceeds the operating reserve threshold ($613,605) by $587,465. Therefore, the operating reserve adjustment for calendar year 2023 is −$587,465.

Supervision tonnage fee. FGIS adds the total prior year supervision costs and the operating reserve adjustment, then divide the result by the previous 5-year average tonnage. If the calculated fee is zero or a negative value, FGIS will suspend collection of supervision tonnage fees for the next calendar year.

The supervision tonnage fee for calendar year 2023 is $0.003 per ton. The calculation, based on FY 2022 supervision costs of $1,227,210, is $1,227,210 plus the operating reserve

adjustment of −$587,465, which equals $639,745, divided by 5-year average tonnage of 227,390,200, which equals $0.003 per ton.

TABLE 6—TONNAGE SUPERVISED

Fiscal year	Metric tons
2018	234,298,085
2019	206,693,881
2020	237,649,430
2021	232,738,700
2022	225,570,903
5-year Rolling Average	227,390,200

Therefore, for 2023, FGIS will assess supervision tonnage fee of $0.003 per ton on domestic shipments officially inspected and/or weighed, including land carrier shipments to Canada and Mexico, performed by delegated States and/or designated agencies on or after April 1, 2023. The Schedule B fee will be published in FGIS Directive 9180.74 and on the agency's public website.

7 CFR 800.71(d) Miscellaneous Fees for Other Services Calculations

Registration certificates and renewals. FGIS calculates the application fee by multiply the Schedule A non-contract hourly rate (Table 1 in § 800.71(a)) by a quantity of five. The resulting fee is expected to cover FGIS personnel costs to review applications, fee publication expenses, and administrative expenses. The Schedule A non-contract hourly rate is $69.50. Thus, the application fee for 2023 will be $69.50 times 5, or $347.50. The fee will be published on the agency's public website after **Federal Register** publication.

Designation amendments. FGIS calculates the rate using the **Federal Register** publication rate for three columns, plus one hour of noncontract hourly rate from § 800.71(a) Table 1 of Schedule A. The fee covers FGIS personnel costs, administrative expenses, and **Federal Register** publication costs. The **Federal Register** publication rate $151 per column and the Schedule A non-contract hourly rate is $69.50. FGIS calculates the fee will be $522.50 for calendar year 2023. The fee will be published on the agency's public website after **Federal Register** publication.

Authority: 7 U.S.C. 71–87k.

Melissa Bailey,

Associate Administrator, Agricultural Marketing Service.

[FR Doc. 2023–06466 Filed 3–28–23; 8:45 am]

BILLING CODE P

DEPARTMENT OF AGRICULTURE

Submission for OMB Review; Comment Request

The Department of Agriculture has submitted the following information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104–13. Comments are requested regarding: whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; the accuracy of the agency's estimate of burden including the validity of the methodology and assumptions used; ways to enhance the quality, utility and clarity of the information to be collected; and ways to 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.

Comments regarding this information collection received by April 28, 2023 will be considered. Written comments and recommendations for the proposed information collection should be submitted within 30 days of the publication of this notice on the following website *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.

An agency may not conduct or sponsor a collection of information unless the collection of information displays a currently valid OMB control number and the agency informs potential persons who are to respond to the collection of information that such persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.

Rural Housing Service

Title: 7 CFR 3550—Direct Single Family Housing Loan and Grant Program, HB–1–3550, HB–2–3550.

OMB Control Number: 0575–0172.

Summary of Collection: USDA Rural Development (RD) is committed to helping improve the economy and quality of life in rural America. RD's Rural Housing Service (RHS or Agency) offers a variety of programs to build or improve housing and essential community facilities in rural areas.

The Housing Act of 1949 provides the authority for the RHS's direct single family housing loan and grant programs. The programs provide eligible applicants with financial assistance to own adequate but modest homes in rural areas. 7 CFR part 3550 sets forth the programs' policies and the programs' procedures can be found in its accompanying handbooks (Handbook-1–3550 and Handbook-2–3550). To originate and service direct loans and grants that comply with the programs' statute, policies, and procedures, RHS must collect information from low- and very low-income applicants, third parties associated with or working on behalf of the applicants, borrowers, and third parties associated with or working on behalf of the borrowers.

Need and Use of the Information: Information needed for origination purposes is largely collected by RD field staff from applicants and third parties associated with or working on behalf of the applicants. Information needed for servicing purposes is largely collected by the Servicing and Asset Management Office (Servicing Center) from borrowers and third parties associated with or working on behalf of the borrowers. The party collecting the information provides the respondent with the needed form(s) and/or non-form(s) along with submission instructions. While submission instructions may vary, the Agency utilizes secure electronic means of submission when possible (*e.g.,* eForms and password protected emails).

Description of Respondents: Individuals or households; Business or other for-profit; Not-for-profit institutions.

Number of Respondents: 248,919.

Frequency of Responses: Reporting: On occasion; Annually.

Total Burden Hours: 310,496.

Levi S. Harrell,

Departmental Information Collection Clearance Officer.

[FR Doc. 2023–06454 Filed 3–28–23; 8:45 am]

BILLING CODE 3410–XV–P

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

[Docket No. APHIS–2023–0008]

Notice of Request for Extension of Approval of an Information Collection; Highly Pathogenic Avian Influenza, All Subtypes, and Newcastle Disease; Additional Restrictions (Pet, Performing, and Research Birds; Bird Carcasses)

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Extension of approval of an information collection; comment request.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, this notice announces the Animal and Plant Health Inspection Service's intention to request an extension of approval of an information collection associated with the regulations to prevent the introduction of highly pathogenic avian influenza, all subtypes, and Newcastle disease into the United States through the importation of pet, performing, and research birds and poultry, and unprocessed bird and poultry products, mainly bird carcasses.

DATES: We will consider all comments that we receive on or before May 30, 2023.

ADDRESSES: You may submit comments by either of the following methods:

- *Federal eRulemaking Portal:* Go to *www.regulations.gov.* Enter APHIS–2023–0008 in the Search field. Select the Documents tab, then select the Comment button in the list of documents.
- *Postal Mail/Commercial Delivery:* Send your comment to Docket No. APHIS–2023–0008, Regulatory Analysis and Development, PPD, APHIS, Station 3A–03.8, 4700 River Road, Unit 118, Riverdale, MD 20737–1238.

Supporting documents and any comments we receive on this docket may be viewed at *regulations.gov* or in our reading room, which is located in Room 1620 of the USDA South Building, 14th Street and Independence Avenue SW, Washington, DC. Normal reading room hours are 8 a.m. to 4:30 p.m., Monday through Friday, except holidays. To be sure someone is there to help you, please call (202) 799–7039 before coming.

FOR FURTHER INFORMATION CONTACT: For information on the regulations to prevent the introduction of highly pathogenic avian influenza and Newcastle disease, contact Dr. Bettina Helm, Senior Staff Veterinary Medical Officer, Live Animal Imports, Strategy & Policy, VS, APHIS, 4700 River Road, Unit 40, Riverdale, MD 20737; (301) 851–3300; *bettina.helm@usda.gov.* For information on the information collection reporting process, contact Mr. Joseph Moxey, APHIS' Paperwork Reduction Act Coordinator, at (301) 851–2483; *joseph.moxey@usda.gov.*

SUPPLEMENTARY INFORMATION:

Title: Highly Pathogenic Avian Influenza, All Subtypes, and Newcastle Disease; Additional Restrictions (Pet, Performing, and Research Birds; Bird Carcasses).

OMB Control Number: 0579–0245.

Type of Request: Extension of approval of an information collection.

Abstract: Under the Animal Health Protection Act (7 U.S.C. 8301 *et seq.*), the Animal and Plant Health Inspection Service (APHIS) of the U.S. Department of Agriculture (USDA) is authorized, among other things, to prohibit or restrict the importation and interstate movement of animals and animal products to prevent the introduction into and dissemination within the United States of livestock diseases and pests. To carry out this mission, APHIS regulates the importation of animals and animal products into the United States. The regulations for the importation of animals and animal products are contained in 9 CFR parts 92 through 98.

The regulations in parts 93, 94, and 95 govern the importation of specified animals and animal products and byproducts to prevent the introduction of various animal diseases, including highly pathogenic avian influenza (HPAI), all subtypes, and Newcastle disease.

HPAI, as defined in § 94.0, is an infectious and fatal disease of poultry. HPAI can strike poultry quickly without any warning signs of infection, and once established, can spread rapidly from flock to flock. HPAI viruses can be spread by manure, equipment, vehicles, egg flats, crates, and people whose clothing or shoes have come in contact with the viruses. In addition, HPAI viruses can remain viable at moderate temperatures for long periods in the environment and can survive indefinitely in frozen material. One gram of contaminated manure can contain enough virus to infect 1 million poultry.

Newcastle disease is a contagious disease of birds and poultry caused by a paramyxovirus. Newcastle disease, as defined in § 94.0, is one of most infectious diseases of poultry in the world. A death rate of almost 100 percent can occur in unvaccinated poultry flocks. Newcastle disease can also infect and cause death even in vaccinated birds and poultry.

APHIS' regulations prohibit or restrict the importation of unprocessed bird and poultry products and byproducts from regions that have reported the presence of HPAI or Newcastle disease and contain permit and quarantine requirements for U.S. origin pet birds and performing or theatrical birds and poultry returning to the United States. In addition, there are also restrictions concerning importation of live poultry and birds that have been vaccinated for certain types of avian influenza or that have moved through or originate from regions where HPAI or Newcastle disease is considered to exist. These regulations require the use of several information collection activities, including various APHIS forms, application of seals, agreements, notarized declarations or affirmations, notification of signs of disease in a recently imported bird, cooperative service agreements, and recordkeeping by processing establishments.

We are asking the Office of Management and Budget (OMB) to approve our use of these information collection activities, as described, for an additional 3 years.

The purpose of this notice is to solicit comments from the public (as well as affected agencies) concerning our information collection. These comments will help us:

(1) Evaluate whether the collection of information is necessary for the proper performance of the functions of the Agency, including whether the information will have practical utility;

(2) Evaluate the accuracy of our estimate of the burden of the collection of information, including the validity of the methodology and assumptions used;

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of the collection of information on those who are to respond, through use, as appropriate, of automated, electronic, mechanical, and other collection technologies; *e.g.,* permitting electronic submission of responses.

Estimate of burden: The public burden for this collection of information is estimated to average 0.529 hours per response.

Respondents: Foreign federal government officials and owners of U.S.-origin pet birds and performing or theatrical birds or poultry returning to the United States, and U.S. importers of bird and poultry carcasses, parts, products and byproducts of birds and poultry and eggs (other than hatching eggs) from certain regions.

Estimated annual number of respondents: 936.

Estimated annual number of responses per respondent: 4.

Estimated annual number of responses: 3,429.

Estimated total annual burden on respondents: 1,814 hours. (Due to averaging, the total annual burden hours may not equal the product of the annual number of responses multiplied by the reporting burden per response.)

All responses to this notice will be summarized and included in the request for OMB approval. All comments will also become a matter of public record.

Done in Washington, DC, this 23rd day of March 2023.

Michael Watson,

Acting Administrator, Animal and Plant Health Inspection Service.

[FR Doc. 2023–06471 Filed 3–28–23; 8:45 am]

BILLING CODE 3410–34–P

DEPARTMENT OF AGRICULTURE

Natural Resources Conservation Service

[Docket ID: NRCS–2023–0006]

Urban Agriculture and Innovative Production Advisory Committee Meeting

AGENCY: Natural Resources Conservation Service (NRCS), United States Department of Agriculture (USDA).

ACTION: Notice of public and virtual meeting.

SUMMARY: The Natural Resources Conservation Service (NRCS) will hold a public meeting of the Urban Agriculture and Innovative Production Advisory Committee (UAIPAC). UAIPAC will reconvene to continue the discussion of the interim recommendations for the Secretary of Agriculture on the development of policies and outreach relating to urban, indoor, and other emerging agriculture production practices. UAIPAC is authorized under the Agriculture Improvement Act of 2018 (2018 Farm Bill) and operates in compliance with the Federal Advisory Committee Act, as amended.

DATES:

Meeting: The UAIPAC meeting will be held on Tuesday, April 18, 2023, from 3 p.m. to 5 p.m. Eastern Daylight Time (EDT).

Written Comments: Written comments will be accepted until 11:59 p.m. EDT on Tuesday, May 2, 2023.

ADDRESSES:

Meeting Location: The meeting will be held virtually via Zoom Webinar. Pre-registration is required to attend the UAIPAC meeting and access information will be provided to registered individuals via email. Registration details can be found at: *https://www.usda.gov/partnerships/federal-advisory-committee-urban-ag.*

Written Comments: We invite you to send comments in response to this notice. Go to *https://www.regulations.gov* and search for Docket ID NRCS–2023–0006. Follow the instructions for submitting comments. All written comments received will be publicly available on *www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: Brian Guse; Designated Federal Officer; telephone: (202) 205–9723; email: *UrbanAgricultureFederalAdvisoryCommittee@usda.gov*.

Individuals who require alternative means for communication may contact the USDA TARGET Center at (202) 720–2600 (voice and text telephone (TTY)) or dial 711 for Telecommunications Relay service (both voice and text telephone users can initiate this call from any telephone).

SUPPLEMENTARY INFORMATION:

UAIPAC Purpose

The Federal Advisory Committee for Urban Agriculture and Innovative Production is one of several ways that USDA is extending support and building frameworks to support urban agriculture, including issues of equity and food and nutrition access. Section 222 of the Department of Agriculture Reorganization Act of 1994, as amended by section 12302 of the 2018 Farm Bill (7 U.S.C. 6923; Pub. L. 115–334) directed the Secretary to establish an ''Urban Agriculture and Innovative Production Advisory Committee'' to advise the Secretary of Agriculture on any aspect of section 222, including the development of policies and outreach relating to urban, indoor, and other emerging agricultural production practices as well as identify any barriers to urban agriculture. UAIPAC will host public meetings to deliberate on recommendations for the Secretary of Agriculture. These recommendations provide advice to the Secretary on supporting urban agriculture and innovative production through USDA's programs and services.

Meeting Agenda

The agenda items may include, but are not limited to, welcome and introductions; administrative matters; presentations from the UAIPAC or USDA staff; and deliberations for proposed recommendations and plans. The USDA UAIPAC website (*https://www.usda.gov/partnerships/federal-advisory-committee-urban-ag*) will be updated with the final agenda at least 24 hours prior to the meeting.

Written Comments

Comments should address specific topics pertaining to urban agriculture and innovative production. Written comments will be accepted until 11:59 p.m. EDT on Tuesday, May 2, 2023. General questions and comments are also accepted at any time via email: *UrbanAgricultureFederalAdvisoryCommittee@usda.gov.*

Meeting Materials

All written comments received by May 2, 2023, will be compiled for UAIPAC review and will be included in the meeting minutes. Duplicate comments from multiple individuals will appear as one comment, with a notation that multiple copies of the comment were received. Please visit *https://www.usda.gov/partnerships/federal-advisory-committee-urban-ag* to view the agenda and minutes from the meeting.

Meeting Accomodations

If you require reasonable accommodation, please make requests in advance for sign language interpretation, assistive listening devices, or other reasonable accommodation, to the person listed under the **FOR FURTHER INFORMATION CONTACT** section. Determinations for reasonable accommodation will be made on a case-by-case basis.

USDA Non-Discrimination Policy

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family or parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Individuals who require alternative means of communication for program information (for example, braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA TARGET Center at (202) 720–2600 (voice and text telephone (TTY)) or dial 711 for Telecommunicaions Relay Service (both voice and text telephone users can initiate this call from any phone). Additionally, program information may be made available in languages other than English.

Equal opportunity practices in accordance with USDA's policies will be followed in all appointments to the FACA Committee: UAIPAC. To ensure that the recommendations of UAIPAC

have taken in account the needs of the diverse groups served by USDA, membership will include to the extent possible, individuals with demonstrated ability to represent minorities, women and person with disabilities. USDA is an equal opportunity provider, employer, and lender.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD–3027, found online at *https://www.usda.gov/oascr/how-to-file-a-program-discrimination-complaint* and at any USDA office or write a letter addressed to USDA and provide in the letter all the information requested in the form. To request a copy of the complaint form, call (866) 632–9992. Submit your completed form or letter to USDA by mail to: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue SW, Washington, DC 20250–9410 or email: *OAC@usda.gov*. USDA is an equal opportunity provider, employer, and lender.

Dated: March 23, 2023.

Cikena Reid,

Committee Management Officer, USDA.

[FR Doc. 2023–06536 Filed 3–28–23; 8:45 am]

BILLING CODE 3410–16–P

COMMISSION ON CIVIL RIGHTS

Notice of Public Meeting of the Minnesota Advisory Committee to the U.S. Commission on Civil Rights

AGENCY: U.S. Commission on Civil Rights.

ACTION: Announcement of virtual business meeting.

SUMMARY: Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission) and the Federal Advisory Committee Act, that the Minnesota Advisory Committee (Committee) to the U.S. Commission on Civil Rights will hold a virtual business meeting via Zoom at 12:30 p.m. CT on Thursday, April 27, 2023, to discuss the Committee's project on housing affordability in the state.

DATES: The meeting will take place on Thursday, April 27, 2023, from 12:30 p.m.–1:30 p.m. CT.

Registration Link (Audio/Visual): https://www.zoomgov.com/j/1612943387.

Telephone (Audio Only): Dial (833) 435–1820 USA Toll Free; Meeting ID: 161 294 3387.

FOR FURTHER INFORMATION CONTACT: David Barreras, DFO, at *dbarreras@usccr.gov* or (202) 656–8937.

SUPPLEMENTARY INFORMATION: Committee meetings are available to the public through the videoconference link above. Any interested member of the public may listen to the meeting. An open comment period will be provided to allow members of the public to make a statement as time allows. Per the Federal Advisory Committee Act, public minutes of the meeting will include a list of persons who are present at the meeting. If joining via phone, callers can expect to incur regular charges for calls they initiate over wireless lines, according to their wireless plan. The Commission will not refund any incurred charges. Closed captions will be provided for individuals who are deaf, deafblind, or hard of hearing. To request additional accommodations, please email *dbarreras@usccr.gov* at least 10 business days prior to the meeting.

Members of the public are also entitled to submit written comments; the comments must be received in the regional office within 30 days following the meeting. Written comments may be emailed to Liliana Schiller at *lschiller@usccr.gov*. Persons who desire additional information may contact the Regional Programs Coordination Unit at (202) 809–9618.

Records generated from this meeting may be inspected and reproduced at the Regional Programs Coordination Unit, as they become available, both before and after the meeting. Records of the meeting will be available via *www.facadatabase.gov* under the Commission on Civil Rights, Minnesota Advisory Committee link. Persons interested in the work of this Committee are directed to the Commission's website, *http://www.usccr.gov,* or may contact the Regional Programs Coordination Unit at the above phone number.

Agenda

I. Welcome & Roll Call

II. Invited Speakers

III. Discussion: Housing Affordability in Minnesota

IV. Public Comment

V. Next Steps

VI. Adjournment

Dated: March 24, 2023

David Mussatt,

Supervisory Chief, Regional Programs Unit.

[FR Doc. 2023–06489 Filed 3–28–23; 8:45 am]

BILLING CODE P

COMMISSION ON CIVIL RIGHTS

Notice of Public Meeting of the New Mexico Advisory Committee to the U.S. Commission on Civil Rights

AGENCY: U.S. Commission on Civil Rights.

ACTION: Announcement of virtual business meeting.

SUMMARY: Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission) and the Federal Advisory Committee Act that the New Mexico Advisory Committee (Committee) will hold a meeting via ZoomGov on Wednesday, April 19, 2023, from 12 p.m.–1 p.m. Mountain Time, for the purpose of debriefing testimony from their recent panel on education adequacy for Native American students.

DATES: The meeting will take place on:

- Wednesday, April 19, from 12 p.m.–1 p.m. MT

Zoom Link (Audio/Visual): https://www.zoomgov.com/meeting/register/vJIsc-Corz0uHmERDUDSBhr7VpNYsItMN68.

FOR FURTHER INFORMATION CONTACT: Brooke Peery, Designated Federal Officer (DFO), at *bpeery@usccr.gov* or (202) 701–1376.

SUPPLEMENTARY INFORMATION: Members of the public may listen to the discussion. This meeting is available to the public through the public registration link listed above. An open comment period will be provided to allow members of the public to make a statement as time allows. The conference call operator will ask callers to identify themselves, the organization they are affiliated with (if any), and an email address prior to placing callers into the conference room. Callers can expect to incur regular charges for calls they initiate over wireless lines, according to their wireless plan. The Commission will not refund any incurred charges. Persons with hearing impairments may also follow the proceedings by first calling the Federal Relay Service at 1–800–877–8339 and providing the Service with the conference call number and conference ID number.

Members of the public are also entitled to submit written comments; the comments must be received in the regional office within 30 days following the meeting. Written comments may be emailed to Brooke Peery at *bpeery@usccr.gov*.

Records generated from this meeting may be inspected and reproduced at the

Regional Programs Unit Office, as they become available, both before and after the meeting. Records of the meeting will be available at: *https://www.facadatabase.gov/FACA/FACAPublicViewCommitteeDetails?id=a10t0000001gzlGAAQ.*

Please click on the ''Meeting Details'' and ''Documents'' links. Persons interested in the work of this Committee are also directed to the Commission's website, *http://www.usccr.gov,* or may contact the Regional Programs Unit office at the above email or street address.

Agenda

I. Welcome and Roll Call
II. Approval of Minutes
III. Committee Discussion
IV. Public Comment
V. Adjournment

Dated: March 23, 2023.

David Mussatt,

Supervisory Chief, Regional Programs Unit.

[FR Doc. 2023–06440 Filed 3–28–23; 8:45 am]

BILLING CODE P

COMMISSION ON CIVIL RIGHTS

Notice of Public Meeting of the Minnesota Advisory Committee to the U.S. Commission on Civil Rights

AGENCY: U.S. Commission on Civil Rights.

ACTION: Announcement of virtual business meeting.

SUMMARY: Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission) and the Federal Advisory Committee Act, that the Minnesota Advisory Committee (Committee) to the U.S. Commission on Civil Rights will hold a virtual business meeting via Zoom at 12:30 p.m. CT on Thursday, April 27, 2023, to discuss the Committee's project on housing affordability in the state.

DATES: The meeting will take place on Thursday, April 27, 2023, from 12:30 p.m.–1:30 p.m. CT.

Registration Link (Audio/Visual): https://www.zoomgov.com/j/1612943387.

Telephone (Audio Only): Dial (833) 435–1820 USA Toll Free; Meeting ID: 161 294 3387.

FOR FURTHER INFORMATION CONTACT: David Barreras, DFO, at *dbarreras@usccr.gov* or (202) 656–8937.

SUPPLEMENTARY INFORMATION: Committee meetings are available to the public through the videoconference link above. Any interested member of the public may listen to the meeting. An open comment period will be provided to allow members of the public to make a statement as time allows. Per the Federal Advisory Committee Act, public minutes of the meeting will include a list of persons who are present at the meeting. If joining via phone, callers can expect to incur regular charges for calls they initiate over wireless lines, according to their wireless plan. The Commission will not refund any incurred charges. Closed captions will be provided for individuals who are deaf, deafblind, or hard of hearing. To request additional accommodations, please email *dbarreras@usccr.gov* at least 10 business days prior to the meeting.

Members of the public are also entitled to submit written comments; the comments must be received in the regional office within 30 days following the meeting. Written comments may be emailed to Liliana Schiller at *lschiller@usccr.gov.* Persons who desire additional information may contact the Regional Programs Coordination Unit at (202) 809–9618.

Records generated from this meeting may be inspected and reproduced at the Regional Programs Coordination Unit, as they become available, both before and after the meeting. Records of the meeting will be available via *www.facadatabase.gov* under the Commission on Civil Rights, Minnesota Advisory Committee link. Persons interested in the work of this Committee are directed to the Commission's website, *http://www.usccr.gov,* or may contact the Regional Programs Coordination Unit at the above phone number.

Agenda

I. Welcome & Roll Call
II. Invited Speakers
III. Discussion: Housing Affordability in Minnesota
IV. Public Comment
V. Next Steps
VI. Adjournment

Dated: March 29, 2023.

David Mussatt,

Supervisory Chief, Regional Programs Unit.

[FR Doc. 2023–06491 Filed 3–28–23; 8:45 am]

BILLING CODE P

DEPARTMENT OF COMMERCE

Bureau of Industry and Security

In the Matter of: Obed Rafael Cuevas-Serratos; 1502 Calle Del Norte, Apt. 11, Laredo, TX 78041–6000; Order Denying Export Privileges

On August 3, 2021, in the U.S. District Court for the Southern District of Texas, Obed Rafael Cuevas-Serratos (''Cuevas-Serratos'') was convicted of violating 18 U.S.C. 554(a). Specifically, Cuevas-Serratos was convicted of smuggling and attempting to smuggle from the United States to Mexico, approximately 13000 rounds of 7.62 millimeter ammunition. As a result of his conviction, the Court sentenced Cuevas-Serratos to 30 months of confinement, three years of supervised release, and a $100 assessment.

Pursuant to section 1760(e) of the Export Control Reform Act (''ECRA''),[1] the export privileges of any person who has been convicted of certain offenses, including, but not limited to, 18 U.S.C. 554, may be denied for a period of up to ten (10) years from the date of his/her conviction. 50 U.S.C. 4819(e). In addition, any Bureau of Industry and Security (''BIS'') licenses or other authorizations issued under ECRA, in which the person had an interest at the time of the conviction, may be revoked. *Id.*

BIS received notice of Cuevas-Serratos's conviction for violating 18 U.S.C. 554. As provided in section 766.25 of the Export Administration Regulations (''EAR'' or the ''Regulations''), BIS provided notice and opportunity for Cuevas-Serratos to make a written submission to BIS. 15 CFR 766.25.[2] BIS has not received a written submission from Cuevas-Serratos.

Based upon my review of the record and consultations with BIS's Office of Exporter Services, including its Director, and the facts available to BIS, I have decided to deny Cuevas-Serratos's export privileges under the Regulations for a period of nine years from the date of Cuevas-Serratos's conviction. The Office of Exporter Services has also decided to revoke any BIS-issued licenses in which Cuevas-Serratos had an interest at the time of his conviction.[3]

[1] ECRA was enacted on August 13, 2018, as part of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, and as amended is codified at 50 U.S.C. 4801–4852.

[2] The Regulations are currently codified in the Code of Federal Regulations at 15 CFR parts 730–774 (2022).

[3] The Director, Office of Export Enforcement, is the authorizing official for issuance of denial orders

Accordingly, it is hereby *ordered:*

First, from the date of this Order until August 3, 2030, Obed Rafael Cuevas-Serratos, with last known addresses of 1502 Calle Del Norte, Apt. 11, Laredo, TX 78041–6000, and when acting for or on his behalf, his successors, assigns, employees, agents or representatives (''the Denied Person''), may not directly or indirectly participate in any way in any transaction involving any commodity, software or technology (hereinafter collectively referred to as ''item'') exported or to be exported from the United States that is subject to the Regulations, including, but not limited to:

A. Applying for, obtaining, or using any license, license exception, or export control document;

B. Carrying on negotiations concerning, or ordering, buying, receiving, using, selling, delivering, storing, disposing of, forwarding, transporting, financing, or otherwise servicing in any way, any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or engaging in any other activity subject to the Regulations; or

C. Benefitting in any way from any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or from any other activity subject to the Regulations.

Second, no person may, directly or indirectly, do any of the following:

A. Export, reexport, or transfer (in-country) to or on behalf of the Denied Person any item subject to the Regulations;

B. Take any action that facilitates the acquisition or attempted acquisition by the Denied Person of the ownership, possession, or control of any item subject to the Regulations that has been or will be exported from the United States, including financing or other support activities related to a transaction whereby the Denied Person acquires or attempts to acquire such ownership, possession or control;

C. Take any action to acquire from or to facilitate the acquisition or attempted acquisition from the Denied Person of any item subject to the Regulations that has been exported from the United States;

D. Obtain from the Denied Person in the United States any item subject to the Regulations with knowledge or reason to know that the item will be, or is intended to be, exported from the United States; or

E. Engage in any transaction to service any item subject to the Regulations that has been or will be exported from the United States and which is owned, possessed or controlled by the Denied Person, or service any item, of whatever origin, that is owned, possessed or controlled by the Denied Person if such service involves the use of any item subject to the Regulations that has been or will be exported from the United States. For purposes of this paragraph, servicing means installation, maintenance, repair, modification or testing.

Third, pursuant to section 1760(e) of ECRA and sections 766.23 and 766.25 of the Regulations, any other person, firm, corporation, or business organization related to Cuevas-Serratos by ownership, control, position of responsibility, affiliation, or other connection in the conduct of trade or business may also be made subject to the provisions of this Order in order to prevent evasion of this Order.

Fourth, in accordance with part 756 of the Regulations, Cuevas-Serratos may file an appeal of this Order with the Under Secretary of Commerce for Industry and Security. The appeal must be filed within 45 days from the date of this Order and must comply with the provisions of Part 756 of the Regulations.

Fifth, a copy of this Order shall be delivered to Cuevas-Serratos and shall be published in the **Federal Register**.

Sixth, this Order is effective immediately and shall remain in effect until August 3, 2030.

John Sonderman,

Director, Office of Export Enforcement.

[FR Doc. 2023–06418 Filed 3–28–23; 8:45 am]

BILLING CODE 3510–DT–P

pursuant to amendments to the Regulations (85 FR 73411, November 18, 2020).

DEPARTMENT OF COMMERCE

International Trade Administration

President's Advisory Council on Doing Business in Africa

AGENCY: U.S. Department of Commerce, International Trade Administration.

ACTION: Notice of an Open Meeting of the President's Advisory Council on Doing Business in Africa (PAC–DBIA or Council).

SUMMARY: The President's Advisory Council on Doing Business in Africa will hold the first meeting of its 2022–2024 term to deliberate and adopt recommendations on actions the U.S. Government can take to strengthen U.S. commercial relationships in Africa. The PAC–DBIA will present recommendations focused on financing and infrastructure, digital and information and communications technology, healthcare, enery and environment, and agribusiness and food/water security. The final agenda for the meeting will be posted prior to the meeting on the Council's website at *http://trade.gov/pac-dbia.*

DATES: April 13, 2023, time to be determined.

ADDRESSES: The President's Advisory Council on Doing Business in Africa meeting will be broadcast via live webcast on the internet at *http://whitehouse.gov/live.*

FOR FURTHER INFORMATION CONTACT: Giancarlo Cavallo, Designated Federal Officer, President's Advisory Council on Doing Business in Africa, Department of Commerce, 1401 Constitution Ave. NW, Room 22004, Washington, DC 20230, telephone: 202–766–8044; 202–250–9798, email: *dbia@trade.gov,Giancarlo.Cavallo@trade.gov.*

SUPPLEMENTARY INFORMATION:

Background: The PAC–DBIA was established on November 4, 2014, to advise the President, through the Secretary of Commerce, on strengthening commercial engagement between the United States and Africa. The Council's charter was renewed for a fourth two-year term in December 2021. The Council was established in accordance with the provisions of the Federal Advisory Committee Act, as amended, 5 U.S.C. App.

Public Submissions: The public is invited to submit written statements to the Council by 5 p.m. April 6, 2023, by either of the following methods:

a. Electronic Submissions

Submit statements electronically to Giancarlo Cavallo, Designated Federal Officer, President's Advisory Council on Doing Business in Africa, via email: *dbia@trade.gov.*

b. Paper Submissions

Send paper statements to Giancarlo Cavallo, Designated Federal Officer, President's Advisory Council on Doing Business in Africa, Department of Commerce, 1401 Constitution Ave. NW, Room 22004, Washington, DC, 20230.

Statements will be provided to PAC–DBIA members in advance of the meeting for consideration and may be posted on the Council website (*http://trade.gov/pac-dbia*). Any business proprietary information should be clearly designated as such. All statements received, including attachments and other supporting materials, are part of the public record and subject to public disclosure.

Meeting minutes: Copies of the Council's meeting minutes will be

available within ninety (90) days of the meeting on the Council's website at *http://trade.gov/pac-dbia.*

Frederique Stewart,

Director, Office of Africa.

[FR Doc. 2023–06449 Filed 3–28–23; 8:45 am]

BILLING CODE 3510–DR–P

DEPARTMENT OF COMMERCE

International Trade Administration

[A–552–801]

Certain Frozen Fish Fillets From the Socialist Republic of Vietnam: Initiation of Antidumping Duty New Shipper Review

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The U.S. Department of Commerce (Commerce) has determined that a request for a new shipper review (NSR) of the antidumping duty order on certain frozen fish fillets from the Socialist Republic of Vietnam (Vietnam) meets the statutory and regulatory requirements for initiation. The period of review (POR) for the NSR is August 1, 2022, through January 31, 2023.

DATES: Applicable March 29, 2023.

FOR FURTHER INFORMATION CONTACT: Javier Barrientos, 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) 482–2243.

SUPPLEMENTARY INFORMATION:

Background

Commerce published the antidumping duty order on certain frozen fish fillets from Vietnam on August 12, 2003.[1] On February 14, 2023, pursuant to section 751(a)(2)(B)(i) of the Tariff Act of 1930, as amended (the Act), and 19 CFR 351.214(c), Commerce received a timely NSR request from Co May Import Export Company Limited (Co May).[2]

In its submission, Co May certified that it is the producer and exporter of the subject merchandise cover by this NSR request.[3] Pursuant to section 751(a)(2)(B)(i)(I) of the Act and 19 CFR 351.214(b)(2)(i), Co May certified that it did not export certain frozen fish fillets to the United States during the period of investigation (POI).[4] Additionally, pursuant to section 751(a)(2)(B)(i)(II) of the Act and 19 CFR 351.214(b)(2)(iii)(A), Co May certified that, since the initiation of the underlying investigation, it has not been affiliated with any producer or exporter that exported certain frozen fish fillets to the United States during the POI, including those not individually examined during the investigation.[5] Pursuant to 19 CFR 351.214(b)(2)(iii)(B), Co May included a certification that its export activities are not controlled by the central government of Vietnam.[6] Pursuant to 19 CFR 351.214(b)(2)(iv), Co May certified that it would provide necessary information related to the unaffiliated customer in the United States during the NSR.[7] Co May also provided a certification by its unaffiliated customer of its willingness to participate in the NSR.[8]

In addition to the certifications described above, pursuant to 19 CFR 351.214(b)(2)(v), Co May submitted documentation establishing the following: (1) the date on which the subject merchandise was first entered, or withdrawn from warehouse, for consumption; (2) the volume of its first shipment and any subsequent shipments, including whether such shipments were made in commercial quantities; and (3) the date of its first sale and any subsequent sales to an unaffiliated customer in the United States.[9]

Additionally, Co May submitted documentation establishing the circumstances surrounding such sale(s), including: (1) the price of such sale(s); (2) any expenses arising from such sale(s); (3) whether the subject merchandise involved in such sale(s) was resold in the United States at a profit; and (4) whether such sale(s) was (were) made on an arm's-length basis.[10] Co May also submitted documentation regarding its business activities, including, where applicable: (1) offers to sell merchandise in the United States; (2) an identification of the complete circumstances surrounding its sale(s) to the United States, as well as any home market or third country sales; and (3) an identification of its relationship to the first unaffiliated U.S. purchaser.[11]

Commerce conducted a query of U.S. Customs and Border Protection (CBP) data and corroborated the existence of a suspended/Type 3 entry made by Co May.[12] Section 351.214(b) of Commerce's regulations allows Commerce to accept an NSR request when a company exported, or sold for export, subject merchandise to the United States, and can sufficiently demonstrate the existence of a *bona fide* sale for initiation purposes.[13] As Co May's submission satisfies these requirements, we are initiating an NSR.

Period of Review

In accordance with 19 CFR 351.214(g)(1)(i)(B), the POR for an NSR initiated in the month immediately following the semi-annual anniversary month will be the six-month period immediately preceding the semi-annual anniversary month. Therefore, the POR for this NSR is August 1, 2022, through January 31, 2023.

Initiation of NSR

Pursuant to section 751(a)(2)(B) of the Act and 19 CFR 351.214(b), and based on the information on the record, we find that Co May's NSR Request meets the threshold requirements for initiation of an NSR of its shipments of certain frozen fish fillets to the United States.[14] However, if the information supplied by Co May is later found to be incorrect or insufficient during the course of this NSR, Commerce may rescind the review or apply adverse facts available, pursuant to section 776 of the Act, as appropriate. Pursuant to 19 CFR 351.221(c)(1)(i), Commerce will publish the notice of initiation of an NSR no later than the last day of the month following the anniversary or semi-annual anniversary month of the order. Commerce intends to issue the preliminary results of this review no later than 180 days from the date of initiation, and the final results of this review no later than 90 days after the date the preliminary results are issued.[15]

It is Commerce's practice in cases involving non-market economies to require that a company seeking to establish eligibility for an antidumping duty rate separate from the country wide rate (*i.e.,* separate rate) provide evidence of *de jure* and *de facto* absence of government control over the company's export activities.[16]

[1] *See Notice of Antidumping Duty Order: Certain Frozen Fish Fillets from the Socialist Republic of Vietnam,* 68 FR 47909 (August 12, 2003) (*Order*).

[2] *See* Co May's Letter, ''Request for New Shipper Review—Co May Import Export Company Limited,'' dated February 14, 2023 (Co May NSR Request).

[3] *Id.* at Exhibit 1.

[4] *Id.*

[5] *Id.*

[6] *Id.*

[7] *See* Co May's Letter, ''Co May Import Export Company Limited—Supplemental Response,'' dated March 22, 2023 (Co May March 22, 2023 SQR).

[8] *See* Co May NSR Request at Exhibit 2.

[9] *Id.* at Exhibits 3 and 4.

[10] *Id.* at Exhibits 4 and 5; *see also* Co May March 22, 2023 SQR.

[11] *See* Co May NSR Request at Exhibits 1 and 6.

[12] *See* Memorandum, ''CBP Data Query Results,'' dated concurrently with this notice.

[13] *See* 19 CFR 351.214(b).

[14] *See generally* Co May NSR Request.

[15] *See* section 751(a)(2)(B)(iii) of the Act.

[16] *See* Enforcement and Compliance's Policy Bulletin No. 05.1, regarding, ''Separate-Rates

Accordingly, Commerce will issue questionnaires to Co May requesting, *inter alia,* information regarding its export activities for the purpose of determining whether it is eligible for a separate rate. The review of the exporter will proceed if the response provides sufficient indication that the exporter is not subject to either *de jure* or *de facto* government control with respect to its exports of certain frozen fish fillets.

We intend to conduct this NSR in accordance with section 751(a)(2)(B) of the Act.[17] Because Co May certified that it exported subject merchandise, the sale of which is the basis for its NSR request, Commerce will instruct CBP to suspend or continue to suspend liquidation of all entries of subject merchandise produced and exported by Co May. To assist in its analysis of the *bona fide* nature of Co May's sale(s), upon initiation of this NSR, Commerce will require Co May to submit, on an ongoing basis, complete transaction information concerning any sales of subject merchandise to the United States that were made subsequent to the POR. Further, in accordance with section 751(a)(2)(B)(iv)(VII) of the Act and 19 CFR 351.214(k), Co May will be required to provide information regarding the following factors for Commerce's consideration in determining whether the sale(s) made by Co May during the POR are *bona fide:* (1) whether the producer, exporter, or customer was established for purposes of making the sale(s) in question after the imposition of the relevant antidumping duty order; (2) whether the producer, exporter, or customer has lines of business unrelated to the subject merchandise; (3) the quantity of sales; and (4) any other factor that Commerce determines to be relevant with respect to the future selling behavior of the producer or exporter, including any other indicia that the sale was not commercially viable.

Interested parties requiring access to proprietary information in this NSR should submit applications for disclosure under administrative protective order in accordance with 19 CFR 351.305 and 351.306.

This initiation notice is published in accordance with section 751(a)(2)(B) of the Act and 19 CFR 351.214 and 351.221(c)(1)(i).

Dated: March 23, 2023.

James Maeder,

Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations.

[FR Doc. 2023–06468 Filed 3–28–23; 8:45 am]

BILLING CODE 3510–DS–P

DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–914]

Light-Walled Rectangular Pipe and Tube From the People's Republic of China: Final Results of Antidumping Duty Administrative Review; 2020–2021; Correction

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: On March 14, 2023, the U.S. Department of Commerce (Commerce) published a notice in the **Federal Register**, in which it issued the final results of the 2020–2021 antidumping duty administrative review of light-walled rectangular pipe and tube from the People's Republic of China (China). The notice inadvertently contained an incorrect rate for the China-wide entity.

DATES: Applicable March 29, 2023.

FOR FURTHER INFORMATION CONTACT: Magd Zalok, AD/CVD Operations, Office IV, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–4162.

SUPPLEMENTARY INFORMATION:

Correction

In the **Federal Register** of March 14, 2023, in FR Doc. 2023–05208, pages 15671–72 in the third and first columns, respectively, Commerce included an incorrect China-wide rate of 264.64 percent. The correct China-wide rate is 255.07 percent.

Background

On March 14, 2023, Commerce inadvertently published an incorrect rate in the final results of the 2020–2021 antidumping duty administrative review of light-walled rectangular pipe and tube from China.[1] In the final results, Commerce incorrectly listed the China-wide rate as 264.64 percent, while the correct China-wide rate is 255.07 percent. This notice serves as a notification of, and correction to, this inadvertent error. With the issuance of this notice of correction, we confirm that the China-wide rate is 255.07 percent.

Notification to Interested Parties

This notice is issued and published in accordance with sections 751(a)(1) and 777(i) of the Tariff Act of 1930, as amended.

Dated: March 24, 2023.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

[FR Doc. 2023–06632 Filed 3–28–23; 8:45 am]

BILLING CODE 3510–DS–P

DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–042, C–570–043]

Stainless Steel Sheet and Strip From the People's Republic of China: Final Scope Ruling and Final Affirmative Determination of Circumvention for Exports From the Socialist Republic of Vietnam

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The U.S. Department of Commerce (Commerce) determines that certain stainless steel sheet and strip (SSSS) of Chinese-origin that has undergone further processing in the Socialist Republic of Vietnam (Vietnam) is merchandise covered by the scope of the antidumping duty (AD) and countervailing duty (CVD) orders on SSSS from the People's Republic of China (China). Additionally, Commerce determines that SSSS that is completed in Vietnam using certain non-subject stainless steel flat-rolled inputs sourced from China, is circumventing the AD/CVD orders on SSSS from China. As a result, SSSS of Chinese-origin that has undergone further processing or completion in Vietnam will be subject to suspension of liquidation effective May 15, 2020.

DATES: Applicable March 29, 2023.

FOR FURTHER INFORMATION CONTACT: Blaine Wiltse, Office of the Deputy Assistant Secretary for AD/CVD Operations, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–6345.

Practice and Application of Combination Rates in Antidumping Investigations Involving Non-Market Economy Countries,'' dated April 15, 2005, available at *https://access.trade.gov/Resources/policy/bull05-1.pdf.*

[17] The Act was amended by the Trade Facilitation and Trade Enforcement Act of 2015, which removed from section 751(a)(2)(B) of the Act the provision directing Commerce to instruct CBP to allow an importer the option of posting a bond or security in lieu of a cash deposit during the pendency of an NSR. This was also codified in Commerce's regulations at 19 CFR 351.214(e).

[1] *See Light-Walled Rectangular Pipe and Tube from the People's Republic of China: Final Results of Antidumping Duty Administrative Review; 2020–2021,* 88 FR 15671 (March 14, 2023).

SUPPLEMENTARY INFORMATION:

Background

On September 15, 2022, Commerce published the preliminary scope ruling and preliminary affirmative determination of circumvention of the AD/CVD orders on SSSS from China.[1] In the *Preliminary Determinations,* we preliminarily found, pursuant to 19 CFR 351.225(k)(1), that SSSS of Chinese-origin that has undergone further processing in Vietnam is covered by the scope of the *Orders.*[2] Additionally, pursuant to section 781(b) of the Tariff Act of 1930, as amended (the Act), we preliminarily determined that SSSS completed in Vietnam using certain non-subject stainless steel flat-rolled inputs [3] of Chinese-origin is circumventing the *Orders.*[4]

From December 5 through 9, 2022, Commerce conducted on-site verifications of the information submitted by the mandatory respondents, POSCO VST Co, Ltd. and POSCO Vietnam Processing Center, Ltd., at these companies' facilities located outside Ho Chi Minh City, Vietnam.[5] On December 29, 2022, Commerce extended the deadline for the final determinations of these circumvention and scope inquiries to April 4, 2023.[6]

On February 13, 2023, we received a case brief from Outokumpu Stainless USA LLC (Outokumpu), in which Outokumpu expressed its support of the *Preliminary Determinations.*[7] Commerce also received a letter in support of Outokumpu's case brief from North American Stainless.[8] No other interested parties commented on the *Preliminary Determinations.* Accordingly, we received no comments in opposition to our *Preliminary Determinations* and no requests for a public hearing from interested parties within the time period set forth in the *Preliminary Determinations.* Given that we received no comments in opposition to the *Preliminary Determinations,* we do not find it necessary to discuss these comments, which were in support of Commerce's decisions.

Scope of the Orders [9]

The product covered by the *Orders* is stainless steel sheet and strip. Subject merchandise includes SSSS that has been further processed in a third country, including but not limited to cold-rolling, annealing, tempering, polishing, aluminizing, coating, painting, varnishing, trimming, cutting, punching, and/or slitting, or any other processing that would not otherwise remove the merchandise from the scope of the *Orders* if performed in the country of manufacture of the SSSS. Excluded from the scope of the *Orders* are the following: (1) sheet and strip that is not annealed or otherwise heat treated and not pickled or otherwise descaled; (2) plate (*i.e.,* flat-rolled stainless steel products of a thickness of 4.75 mm or more); and (3) flat wire (*i.e.,* cold-rolled sections, with a mill edge, rectangular in shape, of a width of not more than 9.5 mm). For a complete description of the scope of the *Orders, see* Appendix I.[10]

Merchandise Subject to the Circumvention Inquiry

This circumvention inquiry covers SSSS completed in Vietnam using certain non-subject stainless steel flat-rolled inputs of Chinese-origin that is subsequently exported from Vietnam to the United States.

Merchandise Subject to the Scope Inquiry

This scope inquiry covers SSSS of Chinese-origin that has undergone further processing in Vietnam (including but not limited to cold-rolling, annealing, tempering, polishing, aluminizing, coating, painting, varnishing, trimming, cutting, punching, and/or slitting, or any other processing that would not otherwise remove the merchandise from the scope of the *Orders*) that is subsequently exported to the United States.

Methodology

We conducted these circumvention and scope inquiries in accordance with section 781(b) of the Act, and 19 CFR 351.225(h), 351.225(b), and 351.225(k)(1).[11] For a full description of the methodology underlying Commerce's final determinations, *see* the Preliminary Decision Memorandum.[12] The Preliminary Decision Memorandum is a public document and 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.*

Final Determinations

As detailed in the *Preliminary Determinations,* pursuant to 19 CFR 351.225(k)(1), we continue to find that SSSS of Chinese-origin that has undergone further processing in Vietnam is covered by the scope of the *Orders.* Additionally, pursuant to section 781(b) of the Act, we determine that SSSS completed in Vietnam using certain non-subject stainless steel flat-rolled inputs of Chinese-origin is

[1] *See Stainless Steel Sheet and Strip from the People's Republic of China: Preliminary Scope Ruling and Preliminary Affirmative Determination of Circumvention for Exports from the Socialist Republic of Vietnam,* 87 FR 56626 (September 15, 2022) (*Preliminary Determinations*), and accompanying Preliminary Decision Memorandum (PDM).

[2] *See Preliminary Determinations,* 87 FR at 56627, and PDM at 27–28.

[3] The term ''certain non-subject stainless steel flat-rolled inputs'' refers to stainless steel flat-rolled products that are not further worked than hot-rolled and/or of a thickness greater than 4.75 millimeters.

[4] *See Preliminary Determinations,* 87 FR at 56627, and PDM at 27–28.

[5] *See* Memoranda, ''Verification of the Questionnaire Responses of POSCO VST Co., Ltd. in the Circumvention Inquiry of the Antidumping and Countervailing Duty Orders on Stainless Steel Sheet and Strip from the People's Republic of China Further Processed In, and Exported from, the Socialist Republic of Vietnam,'' dated February 3, 2023; and, ''Verification of the Questionnaire Responses of POSCO Vietnam Processing Center, Ltd. in the Circumvention Inquiry of the Antidumping and Countervailing Duty Orders on Stainless Steel Sheet and Strip from the People's Republic of China Further Processed In, and Exported from, the Socialist Republic of Vietnam,'' dated February 3, 2023.

[6] *See* Memorandum, ''Stainless Steel Sheet and Strip from the People's Republic of China: Extension of Deadline for Issuing the Final Determinations in the Circumvention and Scope Inquiries,'' dated December 29, 2022.

[7] *See* Outokumpu's Letter, ''Stainless Steel Sheet and Strip from the People's Republic of China: Case Brief Submitted on Behalf of Outokumpu Stainless USA LLC,'' dated February 13, 2023.

[8] *See* North American Stainless' Letter, ''Stainless Steel Sheet and Strip from the People's Republic of China: North American Stainless' Submission in Support of Outokumpu's Case Brief,'' dated February 13, 2023.

[9] *See Stainless Steel Sheet and Strip from the People's Republic of China: Antidumping Duty Order,* 82 FR 16160 (April 3, 2017); *see also Stainless Steel Sheet and Strip from the People's Republic of China: Countervailing Duty Order,* 82 FR 16166 (April 3, 2017) (collectively, *Orders*).

[10] *See also Preliminary Determinations* PDM at 5–6.

[11] On September 20, 2021, Commerce significantly revised its regulations pertaining to circumvention and scope inquiries, with an effective date of November 4, 2021. *See Regulations to Improve Administration and Enforcement of Antidumping and Countervailing Duty Laws,* 86 FR 52300 (September 20, 2021). The newly promulgated 19 CFR 351.226 applies to circumvention inquiries for which a circumvention request is filed, as well as any circumvention inquiry self-initiated by Commerce, on or after November 4, 2021. The amendments to 19 CFR 351.225 apply to scope inquiries for which a scope ruling application is filed, as well as any scope inquiry self-initiated by Commerce, on or after November 4, 2021. We note that these circumvention and scope inquiries were initiated prior to the effective date of the new regulations, and, thus, any reference to the regulations is to the prior version of the regulations.

[12] *See Preliminary Determinations* PDM at 6–28.

circumventing the *Orders.* Therefore, we determine that it is appropriate to include this merchandise within the scope of the *Orders* and to instruct U.S. Customs and Border Protection (CBP) to continue to suspend any entries of merchandise produced using Chinese-sourced inputs and exported from Vietnam to the United States. For a full description of the methodology underlying our conclusions, *see* the Preliminary Decision Memorandum.

Further, because Hoangvu Co., Ltd. (Hoangvu) and SK Networks Co., Ltd. (SK Networks) did not cooperate to the best of their ability in responding to Commerce's requests for information, we have based our determinations with respect to these companies on the facts available, with adverse inferences, pursuant to sections 776(a) and (b) of the Act. In particular, as adverse facts available (AFA), we find that the SSSS exported to the United States by Hoangvu and SK Networks from Vietnam is merchandise covered by the scope of the *Orders.* Additionally, as AFA, we find that finished SSSS products exported by Hoangvu and SK Networks are completed in Vietnam using certain non-subject stainless steel flat-rolled inputs of Chinese-origin, and thus, are circumventing the *Orders.* Furthermore, as AFA, we continue to determine that Hoangvu and SK Networks, and their importers, are ineligible to certify that the SSSS exported by Hoangvu and SK Networks from Vietnam was produced using non-Chinese sourced inputs.

Continued Suspension of Liquidation

In accordance with 19 CFR 351.225(l)(3), based on these final determinations in these circumvention and scope inquiries, Commerce will direct CBP to continue to suspend liquidation and to require a cash deposit of estimated duties on unliquidated entries of SSSS completed in Vietnam using inputs manufactured in China, subsequently exported from Vietnam to the United States, and entered, or withdrawn from warehouse, for consumption on or after May 15, 2020, the date of publication of the notice of initiation of these scope and circumvention inquiries.[13] The suspension of liquidation will remain in effect until further notice.

SSSS that is further processed or completed in Vietnam from stainless steel flat-rolled inputs that are not of Chinese-origin is not subject to these inquiries. Therefore, cash deposits are not required for such merchandise subject to certification requirements set forth below.[14]

For these final determinations, we continue to implement the certification process outlined in the *Preliminary Determinations.* Specifically, if an importer of SSSS from Vietnam claims that the SSSS was not produced using any stainless steel flat-rolled inputs of Chinese-origin, in order to not be subject to cash deposit requirements, the importer and exporter must meet the certification and documentation requirements described in Appendix II. An exporter of SSSS produced in Vietnam claiming that its SSSS was not produced using any stainless steel flat-rolled inputs of Chinese-origin must prepare and maintain an Exporter Certification and documentation supporting the Exporter Certification (*see* Appendix IV). Additionally, importers of such SSSS must prepare and maintain an Importer Certification (*see* Appendix III), as well as documentation supporting the Importer Certification. In addition to the Importer Certification, the importer must also maintain a copy of the Exporter Certification (*see* Appendix IV) and relevant supporting documentation from its exporter of SSSS produced from stainless steel flat-rolled inputs that are not of Chinese-origin.

As described above, the two uncooperative and non-responsive companies (*i.e.,* Hoangvu and SK Networks), along with their importers, are not eligible to participate in the certification process at this time. These companies may request reconsideration of our denial of the certification process in a future segment of the proceeding, *i.e.,* a changed circumstances review or administrative review.[15]

Administrative Protective Order

This notice will serve as the only 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 return/destruction or 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

These final scope and affirmative circumvention determinations are issued and published in accordance with section 781(b) of the Act and 19 CFR 351.225(f) and (h).

Dated: March 23, 2023.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

Appendix I

Scope of the Orders

The merchandise covered by the *Orders* is stainless sheet and strip, whether in coils or straight lengths. Stainless steel is an alloy steel containing, by weight, 1.2 percent or less of carbon and 10.5 percent or more of chromium, with or without other elements. The subject sheet and strip is a flat-rolled product with a width that is greater than 9.5 mm and with a thickness of 0.3048 mm and greater but less than 4.75 mm, and that is annealed or otherwise heat treated, and pickled or otherwise descaled. The subject sheet and strip may also be further processed (*e.g.,* cold-rolled, annealed, tempered, polished, aluminized, coated, painted, varnished, trimmed, cut, punched, or slit, *etc.*) provided that it maintains the specific dimensions of sheet and strip set forth above following such processing. The products described include products regardless of shape, and include products of either rectangular or non-rectangular cross-section where such cross-section is achieved subsequent to the rolling process, *i.e.,* products which have been ''worked after rolling'' (*e.g.,* products which have been beveled or rounded at the edges).

For purposes of the width and thickness requirements referenced above: (1) where the nominal and actual measurements vary, a product is within the scope if application of either the nominal or actual measurement would place it within the scope based on the definitions set forth above; and (2) where the width and thickness vary for a specific product (*e.g.,* the thickness of certain products with non-rectangular cross-section, the width of certain products with non-rectangular shape, *etc.*), the measurement at its greatest width or thickness applies.

All products that meet the written physical description, and in which the chemistry quantities do not exceed any one of the noted element levels listed above, are within the scope of the *Orders* unless specifically excluded.

Subject merchandise includes stainless sheet and strip that has been further processed in a third country, including but

[13] *See Stainless Steel Sheet and Strip from the People's Republic of China: Initiation of Anti-Circumvention and Scope Inquiries on the Antidumping Duty and Countervailing Duty Orders,* 85 FR 29401 (May 15, 2020).

[14] *See* Appendix II for the certification requirements, and Appendixes III and IV for the Importer and Exporter Certifications, respectively.

[15] *See, e.g., Diamond Sawblades and Parts Thereof from the People's Republic of China: Final Determination of Anti-Circumvention Inquiry,* 85 FR 9737, 9739 (February 20, 2020) (''However, Protech may request reconsideration of our denial of the certification process in a future segment of the proceeding, *i.e.,* a changed circumstances review or administrative review.''); *see also Diamond Sawblades and Parts Thereof from the People's Republic of China: Final Results of Antidumping Duty Changed Circumstances Review,* 85 FR 86905 (December 31, 2020) (''. . . Protech is eligible to participate in a certification process because Protech has demonstrated that it can identify diamond sawblades that it produced in Canada using non-Chinese cores and Chinese segments.'').

not limited to cold-rolling, annealing, tempering, polishing, aluminizing, coating, painting, varnishing, trimming, cutting, punching, and/or slitting, or any other processing that would not otherwise remove the merchandise from the scope of the *Orders* if performed in the country of manufacture of the stainless sheet and strip.

Excluded from the scope of the *Orders* are the following: (1) sheet and strip that is not annealed or otherwise heat treated and not pickled or otherwise descaled; (2) plate (*i.e.,* flat-rolled stainless steel products of a thickness of 4.75 mm or more); and (3) flat wire (*i.e.,* cold-rolled sections, with a mill edge, rectangular in shape, of a width of not more than 9.5 mm).

The products under the *Orders* are currently classifiable under Harmonized Tariff Schedule of the United States (HTSUS) subheadings 7219.13.0031, 7219.13.0051, 7219.13.0071, 7219.13.0081, 7219.14.0030, 7219.14.0065, 7219.14.0090, 7219.23.0030, 7219.23.0060, 7219.24.0030, 7219.24.0060, 7219.32.0005, 7219.32.0020, 7219.32.0025, 7219.32.0035, 7219.32.0036, 7219.32.0038, 7219.32.0042, 7219.32.0044, 7219.32.0045, 7219.32.0060, 7219.33.0005, 7219.33.0020, 7219.33.0025, 7219.33.0035, 7219.33.0036, 7219.33.0038, 7219.33.0042, 7219.33.0044, 7219.33.0045, 7219.33.0070, 7219.33.0080, 7219.34.0005, 7219.34.0020, 7219.34.0025, 7219.34.0030, 7219.34.0035, 7219.34.0050, 7219.35.0005, 7219.35.0015, 7219.35.0030, 7219.35.0035, 7219.35.0050, 7219.90.0010, 7219.90.0020, 7219.90.0025, 7219.90.0060, 7219.90.0080, 7220.12.1000, 7220.12.5000, 7220.20.1010, 7220.20.1015, 7220.20.1060, 7220.20.1080, 7220.20.6005, 7220.20.6010, 7220.20.6015, 7220.20.6060, 7220.20.6080, 7220.20.7005, 7220.20.7010, 7220.20.7015, 7220.20.7060, 7220.20.7080, 7220.90.0010, 7220.90.0015, 7220.90.0060, and 7220.90.0080. Although the HTSUS subheadings are provided for convenience and customs purposes, the written description of the scope of the *Orders* is dispositive.

Appendix II

Certification Requirements

If a company imports stainless steel sheet and strip (SSSS) from Vietnam and claims that the entry was not produced from Chinese-sourced stainless steel flat-rolled inputs and, thus, is not subject to the antidumping duty (AD) and countervailing duty (CVD) orders [16] on SSSS from China, then the importer is required to complete and maintain the Importer Certification attached hereto as Appendix III and retain all supporting documentation. The importer is further required to maintain a copy of the Exporter Certification, attached as Appendix IV, and retain all supporting documentation. The Importer Certification must be completed, signed, and dated by the time of filing of the entry summary for the relevant importation. Where the importer uses a broker to facilitate the entry process, it should obtain the entry number from the broker. Agents of the importer, such as brokers, however, are not permitted to make this certification on behalf of the importer.

All importers of SSSS from Vietnam are eligible for the certification process detailed below, with the exception that entries of SSSS produced and/or exported by Hoangvu Co., Ltd. and SK Networks Co., Ltd. are ineligible for certification.

The exporter is required to complete and maintain the Exporter Certification, attached as Appendix IV, and is further required to provide the importer a copy of that certification and all supporting documentation (*e.g.,* invoice, purchase order, production records, *etc.*). The Exporter Certification must be completed, signed, and dated by the time of shipment of the relevant entries (except as noted below). The Exporter Certification should be completed by the party selling the subject merchandise manufactured in Vietnam to the United States.

The importer will not be required to submit the certifications or supporting documentation to U.S. Customs and Border Protection (CBP) as part of the entry process. However, the importer and exporter will be required to present the certifications, and supporting documentation, to the U.S. Department of Commerce (Commerce) and/or CBP, as applicable, upon request by the respective agency. Additionally, the claims made in the certifications and any supporting documentation are subject to verification by Commerce and/or CBP. The importer and exporter are required to maintain the certifications and supporting documentation for the later of: (1) a period of five years from the date of entry; or (2) a period of three years after the conclusion of any litigation in United States courts regarding such entries.

For SSSS exported from Vietnam that was produced using Chinese-sourced stainless steel flat-rolled inputs subject to this inquiry that has been found to be circumventing the *Orders,* Commerce has established the following third-country case numbers in the Automated Commercial Environment (ACE): A–552–042 and C–552–043. For SSSS exported from Vietnam that is merchandise covered by the scope of the *Orders,* where the country of origin does not change for CBP's reporting purposes, importers should report such entries under the case numbers for the *Orders:* A–570–042 and C–570–043. For SSSS exported from Vietnam that is merchandise covered by the scope of the *Orders,* where the country-of-origin changes for CBP's reporting purposes, importers should report such entries under the following third-country case numbers: A–552–042 and C–552–043.

If it is determined that the certification and/or documentation requirements in a certification have not been met, Commerce intends to instruct CBP to suspend, under the appropriate case numbers, either those established for the *Orders,* A–570–042/C–570–043, or the third country case numbers, A–552–042/C–552–043, all unliquidated entries for which these requirements were not met and require the importer to post applicable AD and CVD cash deposits equal to the rates as determined by Commerce. Entries suspended under A–570–042/C–570–043/A–552–042/C–552–043 will be liquidated pursuant to applicable administrative reviews of the *Orders* or through the automatic liquidation process.

For shipments and/or entries suspended pursuant to the preliminary determinations of these scope and circumvention inquiries that were shipped and/or entered, or withdrawn from warehouse, for consumption during the period on or after May 15, 2020 (the date of initiation of these scope and circumvention inquiries) through the date of publication of the preliminary determination in the **Federal Register**, for which certifications are required, importers and exporters should complete the required certification, as soon as practicable but not later than 45 days after the publication of the preliminary determinations in the **Federal Register**. Accordingly, where appropriate, the relevant bullet in the certification should be edited to reflect that the certification was completed within this time frame. Specifically, exporters should complete the language in Paragraph G in the Exporter Certification that reads: ''The shipments/products referenced herein shipped before mm/dd/yyyy, the date on which Commerce published notice of its preliminary scope and circumvention findings in the **Federal Register**. This certification was completed on mm/dd/yyyy, within 45 days of the **Federal Register** notice publication.'' For such entries/shipments, importers and exporters each have the option to complete a blanket certification covering multiple entries/shipments, individual certifications for each entry/shipment, or a combination thereof. The Exporter Certifications should be maintained by both the importer and exporter and provided to CBP or Commerce only upon request by the respective agency. The exporter must provide the importer a copy of the Exporter Certification within 45 days of the publication of the preliminary determination in the **Federal Register**.

For shipments and/or entries suspended pursuant to the preliminary determinations of these scope and circumvention inquiries that were shipped and/or entered, or withdrawn from warehouse, for consumption within 30 days of the date of publication of the preliminary determination in the **Federal Register**, for which certifications are required, importers and exporters should complete the required certification, as soon as practicable but not later than 45 days after the publication of the preliminary determinations in the **Federal Register**. Accordingly, where appropriate, the relevant bullet in the certification should be edited to reflect that the certification was completed within this time frame. Specifically, exporters should complete the language in Paragraph G in the Exporter Certification that reads: ''The shipments/products referenced herein shipped on mm/dd/yyyy. This certification was completed on mm/dd/yyyy, within 45 days of the date on which Commerce published its preliminary scope and circumvention findings in the **Federal Register**.'' For such entries/shipments, importers and exporters each have the option to complete a blanket certification covering

[16] *See Stainless Steel Sheet and Strip from the People's Republic of China: Antidumping Duty Order,* 82 FR 16160 (April 3, 2017); *see also Stainless Steel Sheet and Strip from the People's Republic of China: Countervailing Duty Order,* 82 FR 16166 (April 3, 2017) (collectively, *Orders*).

multiple entries/shipments, individual certifications for each entry/shipment, or a combination thereof. The Exporter Certifications should be maintained by both the importer and exporter and provided to CBP or Commerce only upon request by the respective agency. The exporter must provide the importer a copy of the Exporter Certification within 45 days of the publication of the preliminary determination in the **Federal Register**.

For shipments and/or entries after 30 days from the date of publication of the preliminary determination in the **Federal Register**, for which certifications are required, importers and exporters should complete the required certification at or prior to the date of entry summary and exporters should complete the required certification and provide it to the importer at or prior to the date of shipment. Specifically, exporters should complete the language in Paragraph G in the Exporter Certification that reads: ''I understand that {EXPORTING COMPANY} must provide this Exporter Certification to the U.S. importer by the time of shipment.''

For unliquidated entries (and entries for which liquidation has not become final) of merchandise entered as non-AD/CVD type entries (*e.g.,* type 01) that were shipped and/or entered, or withdrawn from warehouse, for consumption in the United States during the period, May 15, 2020 (the date of initiation of these scope and circumvention inquiries) through the date of publication of the preliminary determination in the **Federal Register**, that is merchandise covered by the scope of the *Orders* or was produced using Chinese-sourced stainless steel flat-rolled inputs subject to this inquiry that have been found to be circumventing the *Orders,* importers should file a Post Summary Correction with CBP, in accordance with CBP's regulations, regarding conversion of such entries from non-AD/CVD type entries to AD/CVD type entries (*e.g.,* type 01 to type 03). For such shipments, the Exporter Certifications should be completed as soon as practicable, but not later than 45 days after publication of the preliminary determination in the **Federal Register**. Importers should report those AD/CVD type entries of merchandise that is covered by the scope of the *Orders,* under the case numbers for the *Orders,* A–570–042/C–570–043, or A–552–042/C–552–043, as appropriate. Importers should report those AD/CVD type entries that were produced using Chinese-sourced stainless steel flat-rolled inputs subject to this inquiry that have been found to be circumventing the *Orders,* using the third-country case numbers, A–552–042/C–552–043. Similarly, the importer should pay cash deposits on those entries consistent with the regulations governing post summary corrections that require payment of additional duties.

Appendix III

Importer Certification

I hereby certify that:

A. My name is {IMPORTING COMPANY OFFICIAL'S NAME} and I am an official of {IMPORTING COMPANY}, located at {ADDRESS OF IMPORTING COMPANY};

B. I have direct personal knowledge of the facts regarding the importation into the Customs territory of the United States of the stainless steel sheet and strip (SSSS) produced in Vietnam that entered under entry summary number(s), identified below, and are covered by this certification. ''Direct personal knowledge'' refers to facts the certifying party is expected to have in its own records. For example, the importer should have ''direct personal knowledge'' of the importation of the product (*e.g.,* the name of the exporter) in its records;

C. I have personal knowledge of the facts regarding the production of the imported products covered by this certification. ''Personal knowledge'' includes facts obtained from another party, (*e.g.,* correspondence received by the importer (or exporter) from the producer regarding the source of the SSSS inputs used to produce the imported products);

D. This certification applies to the following entries (repeat this block as many times as necessary):

Entry Summary #:
Entry Summary Line Item #:
Foreign Seller:
Foreign Seller's Address:
Foreign Seller's Invoice #:
Foreign Seller's Invoice Line Item #:
Country of Origin of Stainless Steel Flat-Rolled Inputs:

If the importer is acting on behalf of the first U.S. customer, complete this paragraph:

E. The SSSS covered by this certification was imported by {IMPORTING COMPANY} on behalf of {U.S. CUSTOMER}, located at {ADDRESS OF U.S. CUSTOMER};

F. The SSSS covered by this certification does not contain stainless steel flat-rolled inputs produced in the People's Republic of China (China);

G. I understand that {IMPORTING COMPANY} is required to maintain a copy of this certification and sufficient documentation supporting this certification (*i.e.,* documents maintained in the normal course of business, or documents obtained by the certifying party, for example, certificates of origin, product data sheets, mill test reports, productions records, invoices, *etc.*) for the later of (1) a period of five years from the date of entry or (2) a period of three years after the conclusion of any litigation in the United States courts regarding such entries;

H. I understand that {IMPORTING COMPANY} is required to provide this certification and supporting records, upon request, to U.S. Customs and Border Protection (CBP) and/or the U.S. Department of Commerce (Commerce);

I. I understand that {IMPORTING COMPANY} is required to maintain a copy of the exporter's certification (attesting to the production and/or export of the imported merchandise identified above), and any supporting documentation provided by the exporter to the importer, for the later of (1) a period of five years from the date of entry or (2) a period of three years after the conclusion of any litigation in United States courts regarding such entries;

J. I understand that {IMPORTING COMPANY} is required to maintain and provide a copy of the exporter's certification and supporting documentation provided by the exporter to the importer, upon request, to CBP and/or Commerce;

K. I understand that the claims made herein, and the substantiating documentation, are subject to verification by CBP and/or Commerce;

L. I understand that failure to maintain the required certification and supporting documentation and/or failure to substantiate the claims made herein and/or failure to allow CBP and/or Commerce to verify the claims made herein, may result in a *de facto* determination that all entries to which this certification applies are within the scope of the antidumping duty (AD) and countervailing duty (CVD) orders on SSSS from China. I understand that such finding will result in:

- suspension of liquidation of all unliquidated entries (and entries for which liquidation has not become final) for which these requirements were not met;
- the requirement that the importer post applicable AD and/or CVD cash deposits (as appropriate) equal to the rates determined by Commerce; and
- the revocation of {IMPORTING COMPANY}'s privilege to certify that future imports of SSSS were not produced using stainless steel flat-rolled inputs sourced from China subject to these certifications.

M. I understand that agents of the importer, such as brokers, are not permitted to make this certification;

N. This certification was completed by the time of filing the entry summary or within 45 days of the date on which Commerce published notice of its preliminary scope and circumvention findings in the **Federal Register**; and

O. I am aware that U.S. law (including, but not limited to, 18 U.S.C. 1001) imposes criminal sanctions on individuals who knowingly and willfully make material false statements to the U.S. government.

Signature
{NAME OF COMPANY OFFICIAL}
{TITLE}
{DATE}

Appendix IV

Exporter Certification

I hereby certify that:

A. My name is {COMPANY OFFICIAL'S NAME} and I am an official of {NAME OF EXPORTING COMPANY}, located at {ADDRESS OF EXPORTING COMPANY};

B. I have direct personal knowledge of the facts regarding the production and exportation in the Customs territory of the United States of the stainless steel sheet and strip (SSSS) identified below. ''Direct personal knowledge'' refers to facts the certifying party is expected to have in its own books and records. For example, an exporter should have ''direct personal knowledge'' of the producer's identity and location;

C. The SSSS covered by this certification does not contain stainless steel flat-rolled inputs produced in the People's Republic of China (China);

D. This certification applies to the following sales to {NAME OF U.S. CUSTOMER}, located at {ADDRESS OF U.S.

CUSTOMER} (repeat this block as many times as necessary):

Foreign Seller's Invoice # to U.S. Customer:

Foreign Seller's Invoice to U.S. Customer Line item #:

Producer's Invoice # to Foreign Seller: (*If the foreign seller and the producer are the same party, put NA here.*)

Producer's Invoice # Foreign Seller: (*If the foreign seller and the producer are the same party, put NA here.*)

Producer of Stainless Steel Flat-Rolled Inputs' Name:

Location (Country) of Producer of Stainless Steel Flat-Rolled Inputs:

E. The SSSS products covered by this certification were shipped to {NAME OF U.S. PARTY TO WHOM MERCHANDISE WAS SHIPPED}, located at {U.S. ADDRESS TO WHICH MERCHANDISE WAS SHIPPED};

F. I understand that {EXPORTING COMPANY} is required to maintain a copy of this certification and sufficient documentation supporting this certification (*i.e.,* documents maintained in the normal course of business, or documents obtained by the certifying party, for example, product data sheets, mill test reports, productions records, invoices, *etc.*) for the later of: (1) a period of five years from the date of entry; or (2) a period of three years after the conclusion of any litigation in the United States courts regarding such entries;

G. The shipments/products referenced herein shipped before mm/dd/yyyy, the date on which Commerce published notice of its preliminary scope and circumvention findings in the **Federal Register**. This certification was completed on mm/dd/yyyy, within 45 days of the **Federal Register** notice publication.

{Or}

The shipments/products referenced herein shipped on mm/dd/yyyy. This certification was completed on mm/dd/yyyy, within 45 days of the date on which Commerce published its preliminary scope and circumvention findings in the **Federal Register**.

{Or}

I understand that {EXPORTING COMPANY} must provide this Exporter Certification to the U.S. importer by the time of shipment;

H. I understand that failure to maintain the required certification and supporting documentation, failure to substantiate the claims made herein, and/or failure to allow U.S. Customs and Border Protection (CBP) and/or the U.S. Department of Commerce (Commerce) to verify the claims made herein, may result in a *de facto* determination that all entries to which this certification applies are within the scope of the antidumping duty (AD) and countervailing duty (CVD) orders on SSSS from China. I understand that such a finding will result in:

○ suspension of all unliquidated entries (and entries for which liquidation has not become final) for which these requirements were not met;

○ the requirement that the importer post applicable AD and/or CVD cash deposits (as appropriate) equal to the rates as determined by Commerce; and

○ the revocation of {EXPORTING COMPANY}'s privilege to certify that future imports of SSSS were not produced using stainless steel flat-rolled inputs sourced from China subject to these certifications.

I. This certification was completed at time of shipment or within 45 days of the date on which Commerce published notice of its preliminary scope and anti-circumvention findings in the **Federal Register**; and

J. I am aware that U.S. law (including, but not limited to, 18 U.S.C. 1001) imposes criminal sanctions on individuals who knowingly and willfully make material false statements to the U.S. government.

Signature
{NAME OF COMPANY OFFICIAL}
{TITLE}
{DATE}

[FR Doc. 2023–06500 Filed 3–28–23; 8:45 am]

BILLING CODE 3510–DS–P

DEPARTMENT OF COMMERCE

International Trade Administration

[A–549–502]

Circular Welded Carbon Steel Pipes and Tubes From Thailand: Preliminary Results of Antidumping Duty Administrative Review; 2021–2022

AGENCY: Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce.

SUMMARY: The U.S. Department of Commerce (Commerce) preliminarily finds that the sole exporter subject to this review, Thai Premium Pipe Co. Ltd. (TPP), made sales of subject merchandise at less than normal value during the period of review (POR) March 1, 2021, through February 28, 2022. We invite interested parties to comment on these preliminary results.

DATES: Applicable March 29, 2023.

FOR FURTHER INFORMATION CONTACT: Thomas Schauer, AD/CVD Operations, Office I, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–0410.

SUPPLEMENTARY INFORMATION:

Background

On March 11, 1986, Commerce published in the **Federal Register** an antidumping duty order on Circular Welded Carbon Steel Pipes and Tubes (CWP) from Thailand.[1] On March 3, 2022, we published in the **Federal Register** a notice of opportunity to request an administrative review of the *Order*.[2] On May 13, 2022, based on a timely request for administrative review, Commerce initiated an administrative review of TPP.[3] On November 7, 2022, Commerce extended the period for issuing the preliminary results of this review by 120 days to no later than March 31, 2023.[4] For a more complete description of the events between the initiation of this review and these preliminary results, *see* the Preliminary Decision Memorandum.[5]

Scope of the Order

The products covered by the *Order* are CWP from Thailand. For a full description of the scope of this *Order, see* the Preliminary Decision Memorandum.[6]

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 of the Act, normal value 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. A list of topics discussed in the Preliminary Decision Memorandum is attached as the Appendix to this notice. 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 *https://access.trade.gov.* In addition, a complete version of the Preliminary Decision Memorandum is available at *https://access.trade.gov/public/FRNoticesListLayout.aspx.*

Preliminary Results of Review

Commerce preliminarily determines that the following weighted-average

[1] *See Antidumping Duty Order; Circular Welded Carbon Steel Pipes and Tubes from Thailand,* 51 FR 8341 (March 11, 1986) (*Order*).

[2] *See Antidumping or Countervailing Duty Order, Finding, or Suspended Investigation; Opportunity To Request Administrative Review and Join Annual Inquiry Service List,* 87 FR 12086 (March 3, 2022).

[3] *See Initiation of Antidumping and Countervailing Duty Administrative Reviews,* 87 FR 29280, 29282 (May 13, 2022).

[4] *See* Memorandum, ''Extension of Deadline for Preliminary Results of the Antidumping Duty Administrative Review; 2021–2022,'' dated November 7, 2022.

[5] *See* Memorandum, ''Circular Welded Carbon Steel Pipes and Tubes from Thailand: Decision Memorandum for the Preliminary Results of Antidumping Duty Administrative Review; 2021–2022,'' dated concurrently with, and hereby adopted by, this notice (Preliminary Decision Memorandum).

[6] *See* Preliminary Decision Memorandum at ''Scope of the *Order*.''

dumping margin exists for the period March 1, 2021, through February 28, 2022:

Producer or exporter	Weighted-average dumping margin (percent)
Thai Premium Pipe Co. Ltd	0.71

Disclosure

We intend to disclose the calculations performed to parties within five days after public announcement of the preliminary results.[7]

Public Comment

Pursuant to 19 CFR 351.309(c), interested parties may submit case briefs not 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 not later than seven days after the date for filing case briefs.[8] 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.[9]

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. 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. Issues raised in the hearing will be limited to those raised in the briefs.

An electronically filed submission must be received successfully in its entirety by Commerce's electronic records system, ACCESS, by 5:00 p.m. Eastern Time within 30 days after the date of publication of this notice. Note that Commerce has temporarily modified certain of its requirements for serving documents containing business proprietary information until further notice.[10]

Final Results of Review

Commerce intends to issue the final results of this administrative review, including the results of its analysis of the issues raised in any written briefs, not later than 120 days after the date of publication of this notice, unless extended, pursuant to section 751(a)(3)(A) of the Act and 19 CFR 351.213(h)(1).

Assessment Rates

Upon completion of 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.[11] If TPP's weighted-average dumping margin is not zero or *de minimis* (*i.e.,* less than 0.50 percent) in the final results of this review, we intend to calculate importer-specific *ad valorem* assessment rates on the basis of the ratio of the total amount of dumping calculated for each importer's examined sales and the total entered value of those same sales in accordance with 19 CFR 351.212(b)(1).[12] If either the respondent's weighted-average dumping margin or an importer-specific assessment rate is zero or *de minimis* in the final results of review, we intend to instruct CBP not to liquidate relevant entries without regards to antidumping duties.

For entries of subject merchandise during the POR produced by TPP for which it did not know that the merchandise was destined to 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.[13]

The final results of this administrative review shall be the basis for the assessment of antidumping duties on entries of merchandise covered by the final results of this review and for future deposits of estimated duties, where applicable.[14] 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).

Cash Deposit Requirements

The following cash deposit requirements will be effective upon publication in the **Federal Register** of the notice of final results of administrative review for all shipments of CWP from Thailand entered, or withdrawn from warehouse, for consumption on or after the date of publication as provided for by section 751(a)(2)(C) of the Act: (1) the cash deposit rate for TPP will be equal to the weighted-average dumping margin established in the final results of this review (except, if that rate is *de minimis* within the meaning of 19 CFR 351.106(c)(1), then the cash deposit rate will be zero); (2) for merchandise exported by a company not covered in this review but covered in a prior completed segment of the proceeding, the cash deposit rate will continue to be the company-specific rate published in the completed segment for the most recent period; (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 company-specific rate established for the completed segment for the most recent period for the producer of the merchandise; and (4) the cash deposit rate for all other producers or exporters will continue to be 15.67 percent, the all-others rate established in the less-than-fair-value investigation.[15]

These 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 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.

Notification to Interested Parties

We are issuing and publishing these preliminary results in accordance with sections 751(a)(1) and 777(i) of the Act, and 19 CFR 351.213(h) and 351.221(b)(4).

[7] *See* 19 CFR 351.224(b).

[8] *See* 19 CFR 351.309(d).

[9] *See* 19 CFR 351.309(c)(2) and (d)(2).

[10] *See Temporary Rule Modifying AD/CVD Service Requirements Due to COVID–19; Extension of Effective Period,* 85 FR 41363 (July 10, 2020).

[11] *See* 19 CFR 351.212(b).

[12] *See Antidumping Proceedings: Calculation of the Weighted-Average Dumping Margin and Assessment Rate in Certain Antidumping Proceedings: Final Modification,* 77 FR 8101, 8103 (February 14, 2012).

[13] For a full discussion of this practice, *see Antidumping and Countervailing Duty Proceedings: Assessment of Antidumping Duties,* 68 FR 23954 (May 6, 2003).

[14] *See* section 751(a)(2)(C) of the Act and 19 CFR 351.212(b).

[15] *See Order.*

Dated: March 23, 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. Particular Market Situation
V. Product Comparisons
VI. Discussion of Methodology
VII. Recommendation

[FR Doc. 2023–06501 Filed 3–28–23; 8:45 am]

BILLING CODE 3510–DS–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XC874]

Gulf of Mexico Fishery Management Council; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of a public meeting.

SUMMARY: The Gulf of Mexico Fishery Management Council (Council) will hold a two-day in-person meeting of its Ecosystem Technical Committee (ETC).

DATES: The meeting will be held Wednesday, April 19 and Thursday, April 20, 2023, from 8:30 a.m. to 4:30 p.m. EDT, daily.

ADDRESSES: The meeting will take place at the Gulf Council office. Registration information will be available on the Council's website by visiting *www.gulfcouncil.org* and clicking on the ''meeting tab''.

Council address: Gulf of Mexico Fishery Management Council, 4107 W Spruce Street, Suite 200, Tampa, FL 33607; telephone: (813) 348–1630.

FOR FURTHER INFORMATION CONTACT: Dr. Natasha Mendez, Fishery Biologist, Gulf of Mexico Fishery Management Council; *natasha.mendez@gulfcouncil.org,* telephone: (813) 348–1630.

SUPPLEMENTARY INFORMATION:

Wednesday, April 19, 2023; 8:30 a.m.–4:30 p.m., EDT

The meeting will begin with Introductions and Adoption of Agenda, Approval of Minutes and Meeting Summary from the December 2021 meeting and a review of the Scope of Work. The ETC will receive a status update on Gulf Fishery Ecosystem Plan (FEP), including background material and direction from the Council.

Following, the ETC will hold discussions on the next steps to Operationalize the Gulf FEP; its Goals and Objectives and Mission Statement, a discussion on how to integrate Fishery Ecosystem Issues (FEIs) into the Gulf FEP Process, FEI Loop with Red Tide as an Example, and provide recommendations on Draft Updates to the FEI Loop. The ETC will discuss Potential FEIs for the Gulf FEP and Prioritization Metrics. The Committee will receive public comment at the end of the day.

Thursday, April 20, 2023; 8:30 a.m.–4:30 p.m., EDT

The Committee will review and discuss the ranking and selection of Top Four FEIs and continue discussion on Next Steps for FEIs in the Gulf FEP or Management Process.

The Committee will receive a stakeholder engagement update from the Outreach & Education Technical Committee recommendations, discuss updating the 2017 Ecosystem Status Report for the Gulf of Mexico, and any items under Other Business.

—Meeting Adjourns

The meeting will also be broadcast via webinar. You may register for the webinar by visiting *www.gulfcouncil.org* and clicking on the Technical meeting on the calendar.

The Agenda is subject to change, and the latest version along with other meeting materials will be posted on *www.gulfcouncil.org* as they become available.

Although other non-emergency issues not on the agenda may come before the Committee for discussion, in accordance with the Magnuson-Stevens Fishery Conservation and Management Act, those issues may not be the subject of formal action during this meeting. Actions of the Committee will be restricted to those issues specifically identified in the agenda and any issues arising after publication of this notice that require emergency action under Section 305(c) of the Magnuson-Stevens Fishery Conservation and Management Act, provided the public has been notified of the Council's intent to take-action to address the emergency.

Special Accommodations

These meetings are physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aid should be directed to Kathy Pereira, (813) 348–1630, at least 5 days prior to the meeting date.

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

Dated: March 24, 2023.

Rey Israel Marquez,

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

[FR Doc. 2023–06512 Filed 3–28–23; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XC876]

South Atlantic Fishery Management Council; Public Meetings

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of a public meeting.

SUMMARY: The South Atlantic Fishery Management Council (Council) will hold a meeting of its Mackerel Cobia Advisory Panel (AP) on April 21, 2023.

DATES: The meeting will be held via webinar on April 21, 2023, from 1 p.m. until 5 p.m.

ADDRESSES:

Meeting address: The meeting will be held via webinar. The webinar is open to members of the public. Registration is required. Webinar registration, an online public comment form, and briefing book materials will be available two weeks prior to the meeting at: *https://safmc.net/advisory-council-meetings/.*

Council address: South Atlantic Fishery Management Council, 4055 Faber Place Drive, Suite 201, N Charleston, SC 29405.

FOR FURTHER INFORMATION CONTACT: Christina Wiegand, Fishery Social Scientist, SAFMC; phone: (843) 571–4366 or toll free: (866) SAFMC–10; fax: (843) 769–4520; email: *christina.wiegand@safmc.net.*

SUPPLEMENTARY INFORMATION: The Mackerel Cobia AP will meet via webinar. Agenda items include: an update on actions related the Coastal Migratory Pelagics (CMP) fishery and the Citizen Science program; discussion and planning for Mackerel Port Meetings; discussion of Council Research Recommendations, discussion of Space Center operation impacts; and other business as needed.

The AP will provide recommendations for Council consideration. Additionally, the AP will elect a Vice-Chair.

Special Accommodations

The meeting is physically accessible to people with disabilities. Requests for auxiliary aids should be directed to the Council office (see **ADDRESSES**) 5 days prior to the meeting.

Note: The times and sequence specified in this agenda are subject to change.

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

Dated: March 24, 2023.

Rey Israel Marquez,

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

[FR Doc. 2023–06513 Filed 3–28–23; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XC881]

New England Fishery Management Council; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of public meeting.

SUMMARY: The New England Fishery Management Council (Council, NEFMC) will hold a three-day in-person meeting with an option for remote participation to consider actions affecting New England fisheries in the exclusive economic zone (EEZ). The Council continues to follow all public safety measures related to COVID–19 and intends to do so for this meeting.

DATES: The meeting will be held on Tuesday, April 18, Wednesday, April 19, and Thursday, April 20, 2023, beginning at 9 a.m., each day.

ADDRESSES:

Meeting address: The meeting will be held at the Hilton Mystic, 20 Coogan Boulevard, Mystic, CT 06355; telephone: (860) 572–0731; online at *https://www.hilton.com/en/hotels/mysmhhf-hilton-mystic/.* Join the webinar at *https://register.gotowebinar.com/register/1463144741317930842.*

Council address: New England Fishery Management Council, 50 Water Street, Mill 2, Newburyport, MA 01950; telephone: (978) 465–0492; *www.nefmc.org.*

FOR FURTHER INFORMATION CONTACT: Thomas A. Nies, Executive Director, New England Fishery Management Council; telephone: (978) 465–0492, ext. 113.

SUPPLEMENTARY INFORMATION:

Agenda

Tuesday, April 18, 2023

The Council will begin this meeting in Closed Session to discuss the search for a new executive director. At 9:30 a.m., the open session will begin with brief announcements, followed by reports on recent activities from the Council's Chair and Executive Director, the Greater Atlantic Regional Fisheries Office (GARFO) Regional Administrator, the Northeast Fisheries Science Center (NEFSC) Director, the NOAA Office of General Counsel, the Mid-Atlantic Fishery Management Council liaison, staff from the Atlantic States Marine Fisheries Commission (ASMFC), and representatives from the U.S. Coast Guard and NOAA's Office of Law Enforcement. Next, the Council will receive an update on work to review and improve the Monkfish Research Set-Aside Program. This report will be followed by an update on a joint New England and Mid-Atlantic Fishery Management Council action to reduce Atlantic sturgeon bycatch in monkfish and dogfish gillnet fisheries. The Council will initiate Monkfish Framework Adjustment 15 to incorporate proposed management measures. The Council then will receive an update on the formation of a new working group charged with addressing issues related to preventing gear conflicts between vessels using on-demand/ropeless fishing gear and vessels using mobile gear. To end the morning, the Council will receive a presentation and provide comments on the Draft NOAA Fisheries National Seafood Strategy.

After the lunch break, the Council will receive a presentation on a Northeast Fisheries Science Center survey to assess current social/economic conditions of commercial fishing crews, including hired captains. The survey is a follow-up to NEFSC's 2018–19 study to determine demographic, well-being, and work condition changes over time. The Enforcement Committee report will be up next. The Council will hear enforcement feedback on a number of issues, including: (1) on-demand/ropeless fishing gear and the Gear Conflict Working Group; (2) the Council's Atlantic Salmon Aquaculture Framework; (3) ongoing work to reduce gillnet/protected resources interactions; (4) NOAA Office of Law Enforcement priorities; and (5) Council enforcement-related work priorities for 2023. After that, the Scallop Committee will provide an update on scallop work priorities for 2023, which include changes to the Scallop Research Set-Aside Program. Another important scallop-related item will be covered under the next agenda item, the Habitat Committee report. The first item of the habitat report will focus on the Northern Edge of Georges Bank and: (1) consider both Habitat Committee and Scallop Committee input, (2) discuss and potentially approve preliminary goals and objectives for possible management action, and (3) consider initiating action to revise the habitat management area (HMA) on the Northern Edge of Georges Bank to authorize scallop fishery access to the area. The habitat report also will include Council final action on a framework adjustment to the Atlantic Salmon Fishery Management Plan (FMP) to facilitate offshore Atlantic salmon aquaculture, followed by an update on offshore energy issues and other habitat-related work. The Council then will adjourn for the day.

Wednesday, April 19, 2023

The Council will begin the second day of its meeting with the Groundfish Committee report, which will cover multiple items. First, the Council will receive a progress report on the Groundfish Plan Development Team's work to develop performance metrics and indicators for the review process to evaluate the new groundfish monitoring system under Amendment 23 to the Northeast Multispecies Fishery Management Plan. The Council also will hear the Scientific and Statistical Committee's feedback on the metrics and indicators. The groundfish report will cover four other items: (1) an update on the facilitated process to develop new acceptable biological catch (ABC) control rules for groundfish; (2) an update on the Atlantic cod management transition plan should the Council go from managing two Atlantic cod stocks to four or five; (3) an update on addressing Canadian Atlantic halibut catch swings in the U.S. management process; and (4) a Council discussion on Gulf of Maine haddock. The Skate Committee report will follow, covering an update on work under 2023 skate priorities.

After the lunch break, members of the public will have the opportunity to speak during an open comment period on issues that relate to Council business but are not included on the published agenda for this meeting. The Council asks the public to limit remarks to 3–5 minutes. These comments will be received both in person and through the webinar. A guide for how to publicly comment through the webinar is available on the Council website at *https://s3.amazonaws.com/nefmc.org/*

NEFMC-meeting-remote-participation_generic.pdf. The Ecosystem-Based Fishery Management (EBFM) Committee report will be up next to cover two items: (1) a progress report on the prototype Management Strategy Evaluation (pMSE) planning meetings for EBFM and the Georges Bank example Fishery Ecosystem Plan (eFEP); and (2) committee advice on conducting deep-dive public information workshops on EBFM. The Council then will receive a presentation from the Northeast Fisheries Science Center on its State of the Ecosystem 2023 report for New England. The SSC will provide feedback on the EBFM pMSE strategy and the State of the Ecosystem 2023 report. The Council will close out the day with a congressional update on legislative activities.

Thursday, April 20, 2023

The Council will lead off the third day of its meeting with the Atlantic Herring Committee report, which will cover: (1) an update on coordinated work with the Atlantic States Marine Fisheries Commission and Mid-Atlantic Council on river herring and shad, followed by a Herring Plan Development Team analysis of recent low river herring/shad estimates in the Atlantic herring fishery; and (2) an update on action to revisit the inshore midwater trawl closure that was part of Amendment 8 to the Atlantic Herring Fishery Management Plan but was vacated by court order. The Council then will receive a presentation on the Marine Resource Education Program, including an overview of the science and management components of this program.

After the lunch break, the Council will receive an informational overview on uncertainty in stock projections with two examples from recent framework actions. This item will be followed by a discussion of and decision on terms of reference for revising the Council's Risk Policy. The Council will provide guidance to its Risk Policy Working Group. Finally, the Council will close out the meeting with other business.

Although non-emergency issues not contained on this agenda may come before the Council for discussion, those issues may not be the subject of formal action during this meeting. Council action will be restricted to those issues specifically listed in this notice and any issues arising after publication of this notice that require emergency action under section 305(c) of the Magnuson-Stevens Fishery Conservation and Management Act, provided the public has been notified of the Council's intent to take final action to address the emergency. The public also should be aware that the meeting will be recorded. Consistent with 16 U.S.C. 1852, a copy of the recording is available upon request.

Special Accommodations

This meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Thomas A. Nies (see **ADDRESSES**) at least 5 days prior to the meeting date.

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

Dated: March 24, 2023.

Rey Israel Marquez,

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

[FR Doc. 2023–06514 Filed 3–28–23; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF ENERGY

[Docket No. 14–179–LNG]

Pieridae Energy (USA) Ltd.; Request for Extension for Long-Term Authorization To Export Liquefied Natural Gas

AGENCY: Office of Fossil Energy and Carbon Management, Department of Energy.

ACTION: Notice of request.

SUMMARY: The Office of Fossil Energy and Carbon Management (FECM) (formerly the Office of Fossil Energy) of the Department of Energy (DOE) gives notice (Notice) of receipt of a request (Request), filed by Pieridae Energy (USA) Ltd. (Pieridae USA) on February 2, 2023, and supplemented on February 3, 2023. Pieridae USA requests an amendment to its existing authorization to export U.S.-sourced natural gas by pipeline to Canada and to re-export such natural gas as liquefied natural gas (LNG) to non-free trade agreement countries set forth in DOE/FE Order No. 3768—specifically, an extension to commence its commercial export operations. Pieridae USA filed its request under the Natural Gas Act (NGA). Protests, motions to intervene, notices of intervention, and written comments are invited.

DATES: Protests, motions to intervene, or notices of intervention, as applicable, and written comments are to be filed electronically as detailed in the Public Comment Procedures section no later than 4:30 p.m., Eastern time, April 28, 2023.

ADDRESSES:

Electronic Filing by email: fergas@hq.doe.gov.

Although DOE has routinely accepted public comment submissions through a variety of mechanisms, including postal mail and hand delivery/courier, DOE has found it necessary to make temporary modifications to the comment submission process in light of the ongoing Covid-19 pandemic. DOE is currently accepting only electronic submissions at this time. If a commenter finds that this change poses an undue hardship, please contact Office of Resource Sustainability staff at (202) 586–4749 or (202) 586–7893 to discuss the need for alternative arrangements. Once the Covid-19 pandemic health emergency is resolved, DOE anticipates resuming all of its regular options for public comment submission, including postal mail and hand delivery/courier.

FOR FURTHER INFORMATION CONTACT:

Jennifer Wade or Peri Ulrey, U.S. Department of Energy (FE–34), Office of Regulation, Analysis, and Engagement, Office of Resource Sustainability, Office of Fossil Energy and Carbon Management, Forrestal Building, Room 3E–042, 1000 Independence Avenue SW, Washington, DC 20585, (202) 586–4749 or (202) 586–7893, *jennifer.wade@hq.doe.gov* or *peri.ulrey@hq.doe.gov*

Cassandra Bernstein, U.S. Department of Energy (GC–76), Office of the Assistant General Counsel for Energy Delivery and Resilience, Forrestal Building, Room 6D–033, 1000 Independence Avenue SW, Washington, DC 20585, (202) 586–9793, *cassandra.bernstein@hq.doe.gov*

SUPPLEMENTARY INFORMATION: On February 5, 2016, DOE issued DOE/FE Order No. 3768,[1] authorizing Pieridae USA to export natural gas from the United States to Canada and, after liquefaction in Canada, to re-export the U.S.-sourced natural gas in the form of LNG by vessel from the proposed Goldboro LNG Project (Project), to be located in the Municipality of the District of Guysborough, Nova Scotia, Canada, to any country with which the United States has not entered into a free trade agreement (FTA) requiring national treatment for trade in natural gas, and with which trade is not prohibited by U.S. law or policy (non-

[1] *Pieridae Energy (USA) Ltd.,* DOE/FE Order No. 3768, Docket No. 14–179–LNG, Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export U.S.-Sourced Natural Gas Natural Gas by Pipeline to Canada for Liquefaction and Re-Export in the Form of Liquefied Natural Gas to Non-Free Trade Agreement Countries (Feb. 5, 2016), *https://www.energy.gov/sites/prod/files/2016/02/f29/ord3768.pdf.*

FTA countries).[2] Pieridae USA is authorized to re-export the U.S.-sourced natural gas in the form of LNG to non-FTA countries in a volume equivalent to 292 billion cubic feet per year (Bcf/yr) of natural gas for a term of 20 years to commence from the date of first commercial re-export, but not before.[3]

As relevant here, Order No. 3768 requires Pieridae USA to ''commence re-export operations using the planned liquefaction facilities no later than seven years from the date of issuance of this Order''—*i.e.,* by February 5, 2023.[4] In the Request, Pieridae USA asks DOE to extend this commencement deadline to February 5, 2028, ''such that the term of [the non-FTA] authorization would begin on the earlier of the date of first commercial export or February 5, 2028.'' [5]

In support of this Request, Pieridae USA states that the Project's timeline was pushed back due to its unsuccessful, costly and time-consuming engagement with several internationally regarded LNG engineering, procurement, and construction (EPC) companies in undertaking the necessary steps to enter a lump sum turnkey EPC and commissioning contract for the Project, in addition to the ''unprecedented COVID–19 pandemic which offered its own additional and significant impacts on the Project's ability to move forward.'' [6] Pieridae USA states that it engaged further a EPC company to review and revise the design to a more modularized Project.[7] According to Pieridae USA, the revised design, completed in January 2023, is in line with many recent US LNG export projects based on a smaller scale modularized approach.[8] Pieridae USA states that it is now ready to progress this concept in the realization of the Project.[9] Pieridae USA asserts that granting the requested extension of time will enable Pieridae USA to complete the necessary detailed design, engineering and costing work in order to commence construction and place the Goldboro LNG Project into service.[10] Pieridae USA states that ''[t]he only change to the Project [from the original Application] will be the use of ten smaller modularized liquefaction trains versus the two larger liquefaction trains.'' [11] Additional details can be found in the Request, posted on the DOE website at: *www.energy.gov/fecm/articles/pieridae-energy-usa-ltd-fe-dkt-no-14-179-lng.*

DOE Evaluation

In reviewing Pieridae USA's Request, DOE will consider any issues required by law or policy under NGA section 3(a). To the extent appropriate, DOE will consider the study entitled, *Macroeconomic Outcomes of Market Determined Levels of U.S. LNG Exports* (2018 LNG Export Study),[12] DOE's response to public comments received on that Study,[13] and the following environmental documents:

- *Addendum to Environmental Review Documents Concerning Exports of Natural Gas From the United States,* 79 FR 48132 (Aug. 15, 2014); [14]
- *Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas From the United States,* 79 FR 32260 (June 4, 2014); [15] and
- *Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas From the United States: 2019 Update,* 84 FR 49278 (Sept. 19, 2019), and DOE's response to public comments received on that study.[16]

Parties that may oppose the Request should address these issues and documents in their comments and/or protests, as well as other issues deemed relevant to the Request.

The National Environmental Policy Act (NEPA), 42 U.S.C. 4321 *et seq.,* requires DOE to give appropriate consideration to the environmental effects of its proposed decisions. No final decision will be issued in this proceeding until DOE has met its environmental responsibilities.

Public Comment Procedures

In response to this Notice, any person may file a protest, comments, or a motion to intervene or notice of intervention, as applicable, addressing the Request. Interested parties will be provided 30 days from the date of publication of this Notice in which to submit comments, protests, motions to intervene, or notices of intervention. The public previously was given an opportunity to intervene in, protest, and comment on Pieridae USA's prior non-FTA applications in Docket No. 14–179–LNG. Therefore, DOE will not consider comments or protests that do not bear directly on this Request.

Any person wishing to become a party to this portion of the proceeding evaluating Pieridae USA's Request must file a motion to intervene or notice of intervention. The filing of comments or a protest with respect to the Request will not serve to make the commenter or protestant a party to the proceeding, although protests and comments received from persons who are not parties will be considered in determining the appropriate action to be taken on the Request. All protests, comments, motions to intervene, or notices of intervention must meet the requirements specified by the regulations in 10 CFR part 590, including the service requirements.

As noted, DOE is only accepting electronic submissions at this time. Please email the filing to *fergas.hq.doe.gov.* All filings must include a reference to ''Docket No. 14–179–LNG'' or ''Pieridae Energy (USA) Ltd. Request for Extension'' in the title line.

Please Note: Please include all related documents and attachments (*e.g.,* exhibits) in the original email correspondence. Please do not include any active hyperlinks or password protection in any of the documents or attachments related to the filing. All electronic filings submitted to DOE must follow these guidelines to ensure that all documents are filed in a timely manner.

The Request and any filed protests, motions to intervene, notices of interventions, and comments will also be available electronically by going to the following DOE Web address: *www.energy.gov/fecm/regulation.*

[2] 15 U.S.C. 717b(a).

[3] *See Pieridae Energy (USA) Ltd.,* DOE/FE Order No. 3768 at 227 (Ordering Para. A).

[4] *Pieridae Energy (USA) Ltd.,* DOE/FE Order No. 3768, at 228 (Ordering Para. D).

[5] Pieridae Energy (USA) Ltd., Request for Extension for Long-Term, Multi-Contract Authorization to Export U.S. Sourced Natural Gas by Pipeline to Canada for Liquefaction and Re-Export in the Form of Liquefied Natural Gas, Docket Nos. 14–179–LNG, at 1 (Feb. 2, 2023) [hereinafter Request]. The Request also applies to Pieridae USA's existing FTA orders in Docket Nos. 14–179–LNG, but DOE will address that portion of the Request separately pursuant to NGA section 3(c), 15 U.S.C. 717b(c).

[6] Request at 3.

[7] Request at 3.

[8] Request at 3.

[9] Request at 3–4.

[10] Request at 3–4.

[11] Request at 4.

[12] *See* NERA Economic Consulting, Macroeconomic Outcomes of Market Determined Levels of U.S. LNG Exports (June 7, 2018), *https://www.energy.gov/sites/prod/files/2018/06/f52/Macroeconomic%20LNG%20Export%20Study%202018.pdf.*

[13] U.S. Dep't of Energy, Study on Macroeconomic Outcomes of LNG Exports: Response to Comments Received on Study; Notice of Response to Comments, 83 FR 67251 (Dec. 28, 2018), *https://www.govinfo.gov/content/pkg/FR-2018-12-28/pdf/2018-28238.pdf.*

[14] The Addendum and related documents are available at *https://www.energy.gov/fecm/addendum-environmental-review-documents-concerning-exports-natural-gas-united-states.*

[15] The 2014 Life Cycle Greenhouse Gas Report is available at *https://www.energy.gov/fecm/life-cycle-greenhouse-gas-perspective-exporting-liquefied-natural-gas-united-states.*

[16] U.S. Dep't of Energy, Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States: 2019 Update—Response to Comments, 85 FR 72 (Jan. 2, 2020). The 2019 Update and related documents are available at *https://fossil.energy.gov/app/docketindex/docket/index/21.*

A decisional record on the Request will be developed through responses to this Notice by parties, including the parties' written comments and replies thereto. Additional procedures will be used as necessary to achieve a complete understanding of the facts and issues. If an additional procedure is scheduled, notice will be provided to all parties. If no party requests additional procedures, a final Order may be issued based on the official record, including the Request and responses filed by parties pursuant to this Notice, in accordance with 10 CFR 590.316.

Signed in Washington, DC, on March 23, 2023.

Amy Sweeney,

Director, Office of Regulation, Analysis, and Engagement, Office of Resource Sustainability.

[FR Doc. 2023–06509 Filed 3–28–23; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP23–92–000]

ANR Pipeline Company; Notice of Request Under Blanket Authorization and Establishing Intervention and Protest Deadline

Take notice that on March 13, 2023, ANR Pipeline Company (ANR), 700 Louisiana Street, Suite 1300, Houston, Texas 77002, filed in the above referenced docket, a prior notice pursuant to Sections 157.205 and 157.216 of the Federal Energy Regulatory Commission's regulations under the Natural Gas Act and the blanket certificate issued by the Commission in Docket No. CP82–480–000,[1] seeking authorization to abandon two injection/withdrawal wells and appurtenances located at the Reed City Storage Field in Osceola County, Michigan.

The proposed abandonment is required by Pipeline and Hazardous Materials Safety Administration's Storage Final Rule, which requires storage operators to assess well integrity risk and to implement appropriate prevention and mitigation measures to reduce risk. The two proposed wells provide little value and have historically performed poorly. The estimated cost of the project is $430,000, all as more fully set forth in the request which is on file with the Commission and open to public inspection.

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 (*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 TTY, (202) 502–8659.

Any questions concerning this application should be directed to David A. Alonzo, Manager, Project Authorizations, Bison Pipeline LLC, 700 Louisiana Street, Suite 1300, Houston, Texas 77002, by phone at (832) 320–5477; or by email to *david_alonzo@tcenergy.com.*

Public Participation

There are three ways to become involved in the Commission's review of this project: you can file a protest to the project, you can file a motion to intervene in the proceeding, and you can file comments on the project. There is no fee or cost for filing protests, motions to intervene, or comments. The deadline for filing protests, motions to intervene, and comments is 5:00 p.m. Eastern Time on May 22, 2023. How to file protests, motions to intervene, and comments is explained below.

Protests

Pursuant to section 157.205 of the Commission's regulations under the NGA,[2] any person [3] or the Commission's staff may file a protest to the request. If no protest is filed within the time allowed or if a protest is filed and then withdrawn within 30 days after the allowed time for filing a protest, the proposed activity shall be deemed to be authorized effective the day after the time allowed for protest. If a protest is filed and not withdrawn within 30 days after the time allowed for filing a protest, the instant request for authorization will be considered by the Commission.

Protests must comply with the requirements specified in section 157.205(e) of the Commission's regulations,[4] and must be submitted by the protest deadline, which is May 22, 2023. A protest may also serve as a motion to intervene so long as the protestor states it also seeks to be an intervenor.

Interventions

Any person has the option to file a motion to intervene in this proceeding. Only intervenors have the right to request rehearing of Commission orders issued in this proceeding and to subsequently challenge the Commission's orders in the U.S. Circuit Courts of Appeal.

To intervene, you must submit a motion to intervene to the Commission in accordance with Rule 214 of the Commission's Rules of Practice and Procedure [5] and the regulations under the NGA [6] by the intervention deadline for the project, which is May 22, 2023. As described further in Rule 214, your motion to intervene must state, to the extent known, your position regarding the proceeding, as well as your interest in the proceeding. For an individual, this could include your status as a landowner, ratepayer, resident of an impacted community, or recreationist. You do not need to have property directly impacted by the project in order to intervene. For more information about motions to intervene, refer to the FERC website at *https://www.ferc.gov/resources/guides/how-to/intervene.asp.*

All timely, unopposed motions to intervene are automatically granted by operation of Rule 214(c)(1). Motions to intervene that are filed after the intervention deadline are untimely and may be denied. Any late-filed motion to intervene must show good cause for being late and must explain why the time limitation should be waived and provide justification by reference to factors set forth in Rule 214(d) of the Commission's Rules and Regulations. A person obtaining party status will be placed on the service list maintained by the Secretary of the Commission and will receive copies (paper or electronic) of all documents filed by the applicant and by all other parties.

Comments

Any person wishing to comment on the project may do so. The Commission considers all comments received about the project in determining the appropriate action to be taken. To

[1] *Michigan Wisconsin Pipe Line Company,* 20 FERC ¶ 62,595 (1982).

[2] 18 CFR 157.205.

[3] Persons include individuals, organizations, businesses, municipalities, and other entities. 18 CFR 385.102(d).

[4] 18 CFR 157.205(e).

[5] 18 CFR 385.214.

[6] 18 CFR 157.10.

ensure that your comments are timely and properly recorded, please submit your comments on or before May 22, 2023. The filing of a comment alone will not serve to make the filer a party to the proceeding. To become a party, you must intervene in the proceeding.

How To File Protests, Interventions, and Comments

There are two ways to submit protests, motions to intervene, and comments. In both instances, please reference the Project docket number CP23–92–000 in your submission.

(1) You may file your protest, motion to intervene, and comments by using the Commission's eFiling feature, which is located on the Commission's website (*www.ferc.gov*) under the link to Documents and Filings. New eFiling users must first create an account by clicking on ''eRegister.'' You will be asked to select the type of filing you are making; first select ''General'' and then select ''Protest'', ''Intervention'', or ''Comment on a Filing.'' The Commission's eFiling staff are available to assist you at (202) 502–8258 or *FercOnlineSupport@ferc.gov.*

(2) You can file a paper copy of your submission. Your submission must reference the Project docket number CP23–92–000.

To mail via USPS, use the following address: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426.

To mail via any other courier, use the following address: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, Maryland 20852.

Protests and motions to intervene must be served on the applicant either by mail or email (with a link to the document) at: David A. Alonzo, Manager, Project Authorizations, Bison Pipeline LLC, 700 Louisiana Street, Suite 1300, Houston, Texas 77002, by phone at (832) 320–477; or by email to *david_alonzo@tcenergy.com.* Any subsequent submissions by an intervenor must be served on the applicant and all other parties to the proceeding. Contact information for parties can be downloaded from the service list at the eService link on FERC Online.

Tracking the Proceeding

Throughout the proceeding, additional information about the project will be available from the Commission's Office of External Affairs, at (866) 208–FERC, or on the FERC website at *www.ferc.gov* using the ''eLibrary'' link as described above. 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. For more information and to register, go to *www.ferc.gov/docs-filing/esubscription.asp.*

Dated: March 22, 2023.

Kimberly D. Bose,

Secretary.

[FR Doc. 2023–06439 Filed 3–28–23; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 2879–013]

Green Mountain Power Corporation; Notice of Application Accepted for Filing and Soliciting Comments, Motions To Intervene, and Protests

Take notice that the following hydroelectric application has been filed with the Commission and is available for public inspection:

a. *Application Type:* Non-capacity Amendment of License.

b. *Project No:* 2879–013.

c. *Date Filed:* February 7, 2023, and supplemented March 8, 2023.

d. *Applicant:* Green Mountain Power Corporation (licensee).

e. *Name of Project:* Bolton Falls Hydroelectric Project.

f. *Location:* The project is located on the Winooski River near the town of Duxbury in Washington County, Vermont, and does not occupy federal land.

g. *Filed Pursuant to:* Federal Power Act, 16 U.S.C. 791a–825r.

h. *Applicant Contact:* Jason L. Lisai, Green Mountain Power Corporation, 163 Acorn Lane, Colchester, VT 05446–6611, (802) 655–8723, *jason.lisai@greenmountainpower.com.*

i. *FERC Contact:* Jeremy Jessup, (202) 502–6779, *Jeremy.Jessup@ferc.gov.*

j. *Deadline for filing comments, motions to intervene, and protests:* April 24, 2023.

The Commission strongly encourages electronic filing. Please file comments, motions to intervene, and protests using the Commission's eFiling system at *http://www.ferc.gov/docs-filing/efiling.asp.* Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at *http://www.ferc.gov/docs-filing/ecomment.asp.* You must include your name and contact information at the end of your comments. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov,* (866) 208–3676 (toll free), or (202) 502–8659 (TTY). In lieu of electronic filing, you may submit a paper copy. 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. The first page of any filing should include the docket number P–2879–013. Comments emailed to Commission staff are not considered part of the Commission record.

The Commission's Rules of Practice and Procedure require all intervenors filing documents with the Commission to serve a copy of that document on each person whose name appears on the official service list for the project. Further, if an intervenor files comments or documents with the Commission relating to the merits of an issue that may affect the responsibilities of a particular resource agency, they must also serve a copy of the document on that resource agency.

k. *Description of Request:* The licensee proposes to replace the two existing turbine-generator units with two new turbine-generator units, and add an additional steel roof hatch to the powerhouse. The new turbine-generator units would be placed in the same location as the existing turbine-generator units. The installation of the new units would result in the authorized installed capacity of the project decreasing from 7,500 kilowatts (kW) to 6,962 kW and the maximum hydraulic capacity decreasing from 2,400 cubic feet per second (cfs) to 2,210 cfs. The licensee does not propose any other structural modifications to the powerhouse or any other project structures. In addition, the licensee states there will be no change in the project's operating mode and all construction activities associated with the proposed amendment would occur within the existing powerhouse and be isolated from the river.

l. *Locations of the Application:* This filing may be viewed on the

Commission's website at *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. You may also register online at *http://www.ferc.gov/docs-filing/esubscription.asp* to be notified via email of new filings and issuances related to this or other pending projects. For assistance, call 1–866–208–3676 or email *FERCOnlineSupport@ferc.gov,* for TTY, call (202) 502–8659. Agencies may obtain copies of the application directly from the applicant.

m. Individuals desiring to be included on the Commission's mailing list should so indicate by writing to the Secretary of the Commission.

n. *Comments, Protests, or Motions to Intervene:* Anyone may submit comments, a protest, or a motion to intervene in accordance with the requirements of Rules of Practice and Procedure, 18 CFR 385.210, .211, .214, respectively. In determining the appropriate action to take, the Commission will consider all protests or other comments filed, but only those who file a motion to intervene in accordance with the Commission's Rules may become a party to the proceeding. Any comments, protests, or motions to intervene must be received on or before the specified comment date for the particular application.

o. *Filing and Service of Documents:* Any filing must (1) bear in all capital letters the title ''COMMENTS'', ''PROTEST'', or ''MOTION TO INTERVENE'' as applicable; (2) set forth in the heading the name of the applicant and the project number of the application to which the filing responds; (3) furnish the name, address, and telephone number of the person commenting, protesting or intervening; and (4) otherwise comply with the requirements of 18 CFR 385.2001 through 385.2005. All comments, motions to intervene, or protests must set forth their evidentiary basis. Any filing made by an intervenor must be accompanied by proof of service on all persons listed in the service list prepared by the Commission in this proceeding, in accordance with 18 CFR 385.2010.

Dated: March 23, 2023.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2023–06511 Filed 3–28–23; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 7189–015]

Green Lake Water Power Company; Notice of Application Accepted for Filing, Soliciting Motions To Intervene and Protests, Ready for Environmental Analysis, and Soliciting Comments, Recommendations, Preliminary Terms and Conditions, and Preliminary Fishway Prescriptions

Take notice that the following hydroelectric application has been filed with the Commission and is available for public inspection.

a. *Type of Application:* Subsequent Minor License.

b. *Project No.:* 7189–015.

c. *Date Filed:* March 31, 2022.

d. *Applicant:* Green Lake Water Power Company (Green Lake Power).

e. *Name of Project:* Green Lake Hydroelectric Project (project).

f. *Location:* On Green Lake and Reeds Brook in Hancock County, Maine. The project occupies approximately two acres of the U.S. Fish and Wildlife Service's Green Lake National Fish Hatchery.

g. *Filed Pursuant to:* Federal Power Act, 16 U.S.C. 791(a)–825(r).

h. *Applicant Contact:* Caroline Kleinschmidt, Green Lake Water Power Company, 120 Hatchery Way, Ellsworth, ME 04605; Phone at (207) 667–3322; or email at *caroline@greenlakewaterpower.com.*

i. *FERC Contact:* Arash Barsari at (202) 502–6207, or *Arash.JalaliBarsari@ferc.gov.*

j. *Deadline for filing motions to intervene and protests, comments, recommendations, preliminary terms and conditions, and preliminary fishway prescriptions:* 60 days from the issuance date of this notice; reply comments are due 105 days from the issuance date of this notice.

The Commission strongly encourages electronic filing. Please file motions to intervene and protests, comments, recommendations, preliminary terms and conditions, and preliminary fishway prescriptions using the Commission's eFiling system at *https://ferconline.ferc.gov/FERCOnline.aspx.* Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at *https://ferconline.ferc.gov/QuickComment.aspx.* You must include your name and contact information at the end of your comments. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov,* (866) 208–3676 (toll free), or (202) 502–8659 (TTY). In lieu of electronic filing, you may submit a paper copy. 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. The first page of any filing should include docket number P–7189–015.

The Commission's Rules of Practice and Procedure require all intervenors filing documents with the Commission to serve a copy of that document on each person on the official service list for the project. Further, if an intervenor files comments or documents with the Commission relating to the merits of an issue that may affect the responsibilities of a particular resource agency, they must also serve a copy of the document on that resource agency.

k. This application has been accepted for filing and is now ready for environmental analysis.

l. *Project Description:* The existing Green Lake Project consists of: (1) a 272.2-foot-long, 7.5-foot-high dam that includes: (a) an 83-foot-long concrete-gravity section with a 79.8-foot-long spillway that has a crest elevation of 160.7 feet National Geodetic Vertical Datum of 1929 (NGVD 29), and is topped with a 2-foot-high fish screen; (b) a 12-foot-long concrete intake structure with a 4.5-foot-wide, 4.5-foot-high sluice gate equipped with an 8-foot-wide, 12-foot-high trashrack with a 1-inch clear bar spacing; (c) a 20.2-foot-long concrete gate structure with two approximately 6-foot-wide, 7-foot-high sluice gates, each equipped with a vertical lift, fish screen with an approximately 0.75-inch mesh size; and (d) a 157-foot-long section that includes: (i) a 35.5-foot-long auxiliary spillway with a crest elevation of 161.5 feet NGVD 29; (ii) a 71-foot-long auxiliary spillway with a crest elevation of 163.4 feet NGVD 29; and (iii) a 50.5-foot-long auxiliary spillway with a crest elevation of 163.8 feet NGVD 29; (2) an impoundment (Green Lake) with a surface area of 2,989 acres at an elevation of 160.7 feet NGVD 29; (3) an approximately 92-foot-long concrete channel that conveys flows from the spillway to Reeds Brook; (4) a 1,744-foot-long penstock; (5) a 27-foot-long, 35-foot-wide concrete powerhouse containing a 400-kilowatt (kW) Allis-Chalmers tube turbine-generator unit and a 25-kW centrifugal pump turbine-

generator unit, for a total installed capacity of 425 kW; (6) a 35.38-foot-long, 5-foot-diameter discharge pipe and a 42.25-foot-long, 5-foot-diameter discharge pipe from the powerhouse; (7) a 4.8/12.47-kilovolt (kV) step-up transformer and a 650-foot-long, 12.47-kV underground transmission line that connects the generators to the regional grid; and (8) appurtenant facilities. The project creates an approximately 1,900-foot-long bypassed reach of Reeds Brook.

The current license requires Green Lake Power to: (1) maintain the elevation of Green Lake between 159.7 feet and 160.7 feet NGVD 29 from June 1 through Labor Day weekend each year, and between 157.5 feet and 160.7 feet NGVD 29 for the remainder of the year; (2) complete the fall drawdown of Green Lake by October 15 of each year; (3) reduce the elevation of Green Lake during the spring drawdown to no lower than the elevation attained on the previous October 15 of each year; and (4) release a year-round minimum flow to Reeds Brook of one cubic foot per second (cfs), or inflow to Green Lake, whichever is less, for the protection and enhancement of fish and wildlife resources downstream of the dam. In addition, the current license requires Green Lake Power to provide flows of up to 30 cfs to the FWS's Green Lake National Fish Hatchery.

The current license also requires Green Lake Power to install screens at the project intake to protect fish from turbine entrainment and prevent out-migration of adult salmonids from Green Lake.

The average annual generation of the project was approximately 1,657.8 megawatt-hours from 2016 through 2020.

Green Lake Power proposes to modify the trashrack structure to reduce a gap on the side of the trashrack from 2 inches to 1 inch. Green Lake Power is not proposing any changes to project operation.

m. A copy of the application can be viewed on the Commission's website at *https://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. For assistance, contact FERC Online Support. 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 FERC at *FERCOnlineSupport@ferc.gov* or call toll free, (886) 208–3676 or TTY (202) 502–8659.

n. Anyone may submit comments, a protest, or a motion to intervene in accordance with the requirements of Rules of Practice and Procedure, 18 CFR 385.210, .211, and .214. In determining the appropriate action to take, the Commission will consider all protests or other comments filed, but only those who file a motion to intervene in accordance with the Commission's Rules may become a party to the proceeding. Any comments, protests, or motions to intervene must be received on or before the specified comment date for the particular application.

All filings must: (1) bear in all capital letters the title ''PROTEST,'' ''MOTION TO INTERVENE,'' ''COMMENTS,'' ''REPLY COMMENTS,'' ''RECOMMENDATIONS,'' ''PRELIMINARY TERMS AND CONDITIONS,'' or ''PRELIMINARY FISHWAY PRESCRIPTIONS;'' (2) set forth in the heading the name of the applicant and the project number of the application to which the filing responds; (3) furnish the name, address, and telephone number of the person protesting or intervening; and (4) otherwise comply with the requirements of 18 CFR 385.2001 through 385.2005. All comments, recommendations, terms and conditions, or prescriptions must set forth their evidentiary basis and otherwise comply with the requirements of 18 CFR 4.34(b). Agencies may obtain copies of the application directly from the applicant. A copy of any protest or motion to intervene must be served upon each representative of the applicant specified in the particular application. A copy of all other filings in reference to this application must be accompanied by proof of service on all persons listed on the service list prepared by the Commission in this proceeding, in accordance with 18 CFR 4.34(b) and 385.2010.

You may also register online at *https://ferconline.ferc.gov/FERCOnline.aspx* to be notified via email of new filings and issuances related to this or other pending projects. For assistance, contact FERC Online Support.

o. *The applicant must file no later than 60 days following the date of issuance of this notice:* (1) a copy of the water quality certification; (2) a copy of the request for certification, including proof of the date on which the certifying agency received the request; or (3) evidence of waiver of water quality certification. Please note that the certification request must comply with 40 CFR 121.5(b), including documentation that a pre-filing meeting request was submitted to the certifying authority at least 30 days prior to submitting the certification request. Please also note that the certification request must be sent to the certifying authority and to the Commission concurrently.

p. *Procedural schedule:* The application will be processed according to the following preliminary schedule. Revisions to the schedule will be made as appropriate.

Milestone	Target date
Deadline for filing interventions, protests, comments, recommendations, preliminary terms and conditions, and preliminary fishway prescriptions.	May 2023.
Deadline for filing reply comments	July 2023.

q. Final amendments to the application must be filed with the Commission no later than 30 days from the issuance date of this notice.

Dated: March 23, 2023.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2023–06518 Filed 3–28–23; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings

Take notice that the Commission has received the following Natural Gas & Oil Pipeline Rate and Refund Report filings:

Filings Instituting Proceedings

Docket Numbers: RP23–579–000.

Applicants: Rockies Express Pipeline LLC.

Description: Section 4(d) Rate Filing: REX 2023–03–17 Negotiated Rate Agreement Amendments to be effective 3/18/2023.

Filed Date: 3/17/23.

Accession Number: 20230317–5097.

Comment Date: 5 p.m. ET 3/29/23.

Docket Numbers: RP23–584–000.

Applicants: Trailblazer Pipeline Company LLC.

Description: Compliance filing: TPC Annual Purchases and Sales Report to be effective N/A.

Filed Date: 3/23/23.

Accession Number: 20230323–5059.

Comment Date: 5 p.m. ET 4/4/23.

Docket Numbers: RP23–585–000.

Applicants: Rockies Express Pipeline LLC.

Description: Compliance filing: REX 2023–03–23 Annual Purchases and Sales Report to be effective N/A.

Filed Date: 3/23/23.

Accession Number: 20230323–5060.
Comment Date: 5 p.m. ET 4/4/23.

Any person desiring to intervene or protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Regulations (18 CFR 385.211 and 385.214) on or before 5:00 p.m. Eastern time on the specified comment date. Protests may be considered, but intervention is necessary to become a party to the proceeding.

The filings are accessible in the Commission's eLibrary system (*https://elibrary.ferc.gov/idmws/search/fercgensearch.asp*) by querying the docket number.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: *https://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: March 23, 2023.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2023–06516 Filed 3–28–23; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 7242–060]

STS Hydropower LLC.; Notice of Application for Surrender of License, Soliciting Comments, Motions To Intervene, and Protests

Take notice that the following hydroelectric application has been filed with the Commission and is available for public inspection:

a. *Application Type:* Application for surrender of license.

b. *Project No:* 7242–060.

c. *Date Filed:* September 30, 2022, supplemented on February 28, 2023.

d. *Applicant:* STS Hydropower, LLC.

e. *Name of Project:* Kanaka Hydroelectric Project.

f. *Location:* The project is located on the Sucker Run Creek, in Butte County, California. The project does not occupy any federal lands.

g. *Filed Pursuant to:* Public Utility Regulatory Policies Act of 1978, 16 U.S.C. 2705, 2708.

h. *Applicant Contact:* Ms. Melissa Sonnleitner, PO Box 167, Neshkoro, WI 54960, (920) 293–4628 ext. 347, *Melissa.Sonnleitner@eaglecreekre.com.*

i. *FERC Contact:* Jeffrey V. Ojala, (202) 502–8206, *Jeffrey.Ojala@ferc.gov.*

j. *Deadline for filing comments, motions to intervene, and protests:* April 22, 2023.

The Commission strongly encourages electronic filing. Please file comments, motions to intervene, and protests using the Commission's eFiling system at *https://www.ferc.gov/docs-filing/efiling.asp.* Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at *http://www.ferc.gov/docs-filing/ecomment.asp.* You must include your name and contact information at the end of your comments. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov,* (866) 208–3676 (toll free), or (202) 502–8659 (TTY). In lieu of electronic filing, you may submit a paper copy. 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, MD 20852. The first page of any filing should include the docket number P–7242–060. Comments emailed to Commission staff are not considered part of the Commission record.

The Commission's Rules of Practice and Procedure require all intervenors filing documents with the Commission to serve a copy of that document on each person whose name appears on the official service list for the project. Further, if an intervenor files comments or documents with the Commission relating to the merits of an issue that may affect the responsibilities of a particular resource agency, they must also serve a copy of the document on that resource agency.

k. *Description of Request:* The licensee proposes to surrender its license for the project. The licensee states that the Ponderosa Wildfire of August 2017 severely damaged or destroyed the project's powerhouse, transmission lines, and electrical equipment. The project has been inoperable since that time. Following the fire, the licensee conducted an economic analysis and determined that it is not cost effective to restore the Kanaka Project to full operation. A Dam Decommissioning Plan is included with the application to surrender and in the supplemental information filed on February 28, 2023. The licensee has been working with U.S. Fish and Wildlife Service, U.S. Forest Service, California Department of Fish and Wildlife, California Water Resource Control Board, and the California State Historic Preservation Officer to develop its surrender application.

l. *Locations of the Application:* This filing may be viewed on the Commission's website at *https://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. You may also register online at *http://www.ferc.gov/docs-filing/esubscription.asp* to be notified via email of new filings and issuances related to this or other pending projects. For assistance, call 1–866–208–3676 or email *FERCOnlineSupport@ferc.gov,* for TTY, call (202) 502–8659. Agencies may obtain copies of the application directly from the applicant.

m. Individuals desiring to be included on the Commission's mailing list should so indicate by writing to the Secretary of the Commission.

n. *Comments, Protests, or Motions to Intervene:* Anyone may submit comments, a protest, or a motion to intervene in accordance with the requirements of Rules of Practice and Procedure, 18 CFR 385.210, .211, .214, respectively. In determining the appropriate action to take, the Commission will consider all protests or other comments filed, but only those who file a motion to intervene in accordance with the Commission's Rules may become a party to the proceeding. Any comments, protests, or motions to intervene must be received on or before the specified comment date for the particular application.

o. *Filing and Service of Documents:* Any filing must (1) bear in all capital letters the title ''COMMENTS'', ''PROTEST'', or ''MOTION TO INTERVENE'' as applicable; (2) set forth in the heading the name of the applicant and the project number of the application to which the filing responds; (3) furnish the name, address, and telephone number of the person commenting, protesting or intervening; and (4) otherwise comply with the requirements of 18 CFR 385.2001 through 385.2005. All comments, motions to intervene, or protests must set forth their evidentiary basis. Any filing made by an intervenor must be accompanied by proof of service on all persons listed in the service list prepared by the Commission in this proceeding, in accordance with 18 CFR 385.2010.

Dated: March 23, 2023.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2023–06515 Filed 3–28–23; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 5679–041]

Energy Stream, LLC; Notice Soliciting Scoping Comments

Take notice that the following hydroelectric application has been filed with the Commission and is available for public inspection.

a. *Type of Application:* Subsequent Minor License.

b. *Project No.:* 5679–041.

c. *Date Filed:* July 15, 2022.

d. *Applicant:* Energy Stream, LLC (Energy Stream).

e. *Name of Project:* M.S.C. Hydroelectric Project (project).

f. *Location:* On the Quinebaug River in Windham County, Connecticut. The project does not occupy federal land.

g. *Filed Pursuant to:* Federal Power Act, 16 U.S.C. 791(a)–825(r).

h. *Applicant Contact:* Mr. Rolland Zeleny, Energy Stream, LLC, 18 Washington St., Suite 18, Canton, MA 02021; call at (603) 498–8089; email at *indigoharbor@yahoo.com.*

i. *FERC Contact:* Arash Barsari at (202) 502–6207, or *Arash.JalaliBarsari@ferc.gov.*

j. *Deadline for filing scoping comments:* April 21, 2023.

The Commission strongly encourages electronic filing. Please file scoping comments using the Commission's eFiling system at *https://ferconline.ferc.gov/FERCOnline.aspx.* Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at *https://ferconline.ferc.gov/QuickComment.aspx.* You must include your name and contact information at the end of your comments. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov,* (866) 208–3676 (toll free), or (202) 502–8659 (TTY). In lieu of electronic filing, you may submit a paper copy. 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, MD 20852. All filings must clearly identify the project name and docket number on the first page: M.S.C. Hydroelectric Project (P–5679–041).

The Commission's Rules of Practice and Procedure require all intervenors filing documents with the Commission to serve a copy of that document on each person on the official service list for the project. Further, if an intervenor files comments or documents with the Commission relating to the merits of an issue that may affect the responsibilities of a particular resource agency, they must also serve a copy of the document on that resource agency.

k. The application is not ready for environmental analysis at this time.

l. The existing M.S.C. Hydroelectric Project consists of: (1) an approximately 283-foot-long dam that includes: (a) an approximately 38-foot-long headgate structure with four sluice gates; (b) a 115-foot-long spillway section with 1.6-foot-high flashboards, and a crest elevation of 287.80 feet mean sea level (msl) at the top of the flashboards; (c) a 7-foot-wide pier; (d) a 91-foot-long auxiliary spillway section with a crest elevation of 288.70 feet msl; and (e) a 32-foot-long retaining wall section with a crest elevation of 289.7 feet msl; (2) an impoundment with a surface area of 52 acres at an elevation of 287.80 feet msl; (3) a forebay and intake structure with a trashrack with 1.6-inch clear bar spacing; (4) a low-level outlet gate adjacent to the trashrack; (5) a powerhouse containing a 400-kilowatt (kW) Kaplan turbine-generator unit and a 112-kW Francis turbine-generator unit, for a total installed capacity of 512 kW; (6) a 50-foot-long, 28-foot-wide, 10-foot-deep tailrace; (7) three 50-foot-long, 2.4-kilovolt (kV) lead lines that connect the generators to three 2.4/23-kV step-up transformers, where the project is connected to the regional grid; and (8) appurtenant facilities. The project creates an approximately 65-foot-long bypassed reach of the Quinebaug River.

The current license requires Energy Stream to: (1) operate the project in a run-of-river mode, such that project outflow approximates inflow; (2) release a minimum flow of 144 cubic feet per second (cfs) or inflow to the impoundment, whichever is less, below the tailrace; (3) release minimum flows when refilling the impoundment following emergency or maintenance drawdowns; and (4) provide upstream and downstream passage for American eels.

The minimum and maximum hydraulic capacities of the project are 40 and 545 cfs, respectively. The average annual energy production of the project from 2017 through 2021 was 2,885 megawatt-hours.

Energy Stream is not proposing any changes to project facilities or operation.

m. A copy of the application can be viewed on the Commission's website at *https://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. For assistance, contact FERC Online Support. 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.

n. You may also register online at *https://ferconline.ferc.gov/FERCOnline.aspx* to be notified via email of new filings and issuances related to this or other pending projects. For assistance, please contact FERC Online Support.

o. *Scoping Process:*

Pursuant to the National Environmental Policy Act (NEPA), Commission staff intends to prepare either an environmental assessment (EA) or an environmental impact statement (EIS) (collectively referred to as the ''NEPA document'') that describes and evaluates the probable effects, including an assessment of the site-specific and cumulative effects, if any, of the proposed action and alternatives. The Commission's scoping process will help determine the required level of analysis and satisfy the NEPA scoping requirements, irrespective of whether the Commission issues an EA or an EIS.

At this time, we do not anticipate holding on-site scoping meetings. Instead, we are soliciting written comments and suggestions on the preliminary list of issues and alternatives to be addressed in the NEPA document, as described in scoping document 1 (SD1), issued March 22, 2023.

Copies of the SD1 outlining the subject areas to be addressed in the NEPA document were distributed to the parties on the Commission's mailing list and the applicant's distribution list. Copies of the SD1 may be viewed on the web at *http://www.ferc.gov* using the ''eLibrary'' link (see item m above).

Dated: March 22, 2023.

Kimberly D. Bose,

Secretary.

[FR Doc. 2023–06437 Filed 3–28–23; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP23–91–000]

WBI Energy Transmission, Inc.; Notice of Request Under Blanket Authorization and Establishing Intervention and Protest Deadline

Take notice that on March 9, 2023, WBI Energy Transmission, Inc. (WBI), 1250 West Century Avenue, Bismarck, North Dakota 58503, filed in the above referenced docket, a prior notice request to abandon by sale mainline natural gas facilities located in Big Horn an Washakie Counties, Wyoming, under authorities granted by its blanket certificate issued in Docket No. CP82–487–000, all as more fully set forth in the application which is on file with the Commission and open to public inspection.

Specifically, WBI proposes to abandon by sale a portion of its Worland Cabin Creek mainline, which consist of 4.8 miles of 12-inch-diameter pipeline and associated facilities on WBI's Line Section 20. WBI is selling these facilities to Kentex Worland, LLC (Kentex). WBI states that no service to any customer will be interrupted or otherwise adversely affected by the abandonment of the facilities described above. Upon the sale of the facilities to Kentex, the facilities would not be used to provide FERC-jurisdictional natural gas service. Kentex intends to utilize the facilities for gas gathering purposes.

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://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 FERC at *FERCOnlineSupport@ferc.gov* or call toll-free, (886) 208–3676 or TYY, (202) 502–8659.

Any questions regarding this prior notice request should be directed to Lori Myerchin, Director, Regulatory Affairs and Transportation Services, WBI Energy Transmission, Inc., 1250 West Century Avenue, Bismarck, North Dakota 58503, at (701) 530–1563, or by email at *lori.myerchin@wenergy.com.*

Public Participation

There are three ways to become involved in the Commission's review of this project: you can file a protest to the project, you can file a motion to intervene in the proceeding, and you can file comments on the project. There is no fee or cost for filing protests, motions to intervene, or comments. The deadline for filing protests, motions to intervene, and comments is 5:00 p.m. Eastern Time on May 19, 2023. How to file protests, motions to intervene, and comments is explained below.

Protests

Pursuant to section 157.205 of the Commission's regulations under the NGA,[1] any person [2] or the Commission's staff may file a protest to the request. If no protest is filed within the time allowed or if a protest is filed and then withdrawn within 30 days after the allowed time for filing a protest, the proposed activity shall be deemed to be authorized effective the day after the time allowed for protest. If a protest is filed and not withdrawn within 30 days after the time allowed for filing a protest, the instant request for authorization will be considered by the Commission.

Protests must comply with the requirements specified in section 157.205(e) of the Commission's regulations,[3] and must be submitted by the protest deadline, which is May 19, 2023. A protest may also serve as a motion to intervene so long as the protestor states it also seeks to be an intervenor.

Interventions

Any person has the option to file a motion to intervene in this proceeding. Only intervenors have the right to request rehearing of Commission orders issued in this proceeding and to subsequently challenge the Commission's orders in the U.S. Circuit Courts of Appeal.

To intervene, you must submit a motion to intervene to the Commission in accordance with Rule 214 of the Commission's Rules of Practice and Procedure [4] and the regulations under the NGA [5] by the intervention deadline for the project, which is May 19, 2023. As described further in Rule 214, your motion to intervene must state, to the extent known, your position regarding the proceeding, as well as your interest in the proceeding. For an individual, this could include your status as a landowner, ratepayer, resident of an impacted community, or recreationist. You do not need to have property directly impacted by the project in order to intervene. For more information about motions to intervene, refer to the FERC website at *https://www.ferc.gov/resources/guides/how-to/intervene.asp.*

All timely, unopposed motions to intervene are automatically granted by operation of Rule 214(c)(1). Motions to intervene that are filed after the intervention deadline are untimely and may be denied. Any late-filed motion to intervene must show good cause for being late and must explain why the time limitation should be waived and provide justification by reference to factors set forth in Rule 214(d) of the Commission's Rules and Regulations. A person obtaining party status will be placed on the service list maintained by the Secretary of the Commission and will receive copies (paper or electronic) of all documents filed by the applicant and by all other parties.

Comments

Any person wishing to comment on the project may do so. The Commission considers all comments received about the project in determining the appropriate action to be taken. To ensure that your comments are timely and properly recorded, please submit your comments on or before May 19, 2023. The filing of a comment alone will not serve to make the filer a party to the proceeding. To become a party, you must intervene in the proceeding.

How To File Protests, Interventions, and Comments

There are two ways to submit protests, motions to intervene, and comments. In both instances, please reference the Project docket number CP23–91–000 in your submission.

(1) You may file your protest, motion to intervene, and comments by using the Commission's eFiling feature, which is located on the Commission's website (*www.ferc.gov*) under the link to Documents and Filings. New eFiling users must first create an account by clicking on ''eRegister.'' You will be asked to select the type of filing you are making; first select General'' and then select ''Protest'', ''Intervention'', or ''Comment on a Filing''; or [6]

[1] 18 CFR 157.205.

[2] Persons include individuals, organizations, businesses, municipalities, and other entities. 18 CFR 385.102(d).

[3] 18 CFR 157.205(e).

[4] 18 CFR 385.214.

[5] 18 CFR 157.10.

[6] Additionally, you may file your comments electronically by using the eComment feature, which is located on the Commission's website at

(2) You can file a paper copy of your submission by mailing it to the address below. Your submission must reference the Project docket number CP23–91–000.

To mail via USPS, use the following address: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426.

To send via any other courier, use the following address: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, Maryland 20852.

The Commission encourages electronic filing of submissions (option 1 above) and has eFiling staff available to assist you at (202) 502–8258 or *FercOnlineSupport@ferc.gov*.

Protests and motions to intervene must be served on the applicant either by mail at: Lori Myerchin, Director, Regulatory Affairs and Transportation Services, WBI Energy Transmission, Inc., 1250 West Century Avenue, Bismarck, North Dakota 58503, or by email at *lori.myerchin@wenergy.com.* Any subsequent submissions by an intervenor must be served on the applicant and all other parties to the proceeding. Contact information for parties can be downloaded from the service list at the eService link on FERC Online.

Tracking the Proceeding

Throughout the proceeding, additional information about the project will be available from the Commission's Office of External Affairs, at (866) 208–FERC, or on the FERC website at *FERC.gov* using the ''eLibrary'' link as described above. 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. For more information and to register, go to *www.ferc.gov/docs-filing/esubscription.asp.*

www.ferc.gov under the link to Documents and Filings. Using eComment is an easy method for interested persons to submit brief, text-only comments on a project.

Dated: March 20, 2023.

Kimberly D. Bose,

Secretary.

[FR Doc. 2023–06438 Filed 3–28–23; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 2628–066]

Alabama Power Company; Notice of Waiver Period for Water Quality Certification Application

On March 3, 2023, Alabama Power Company submitted to the Federal Energy Regulatory Commission (Commission) a copy of its application for a Clean Water Act section 401(a)(1) water quality certification filed with the Alabama Department of Environmental Management (Alabama DEM), in conjunction with the above captioned project. Pursuant to 40 CFR 121.6 and section 5.23(b) of the Commission's regulations,[1] we hereby notify Alabama DEM of the following:

Date of Receipt of the Certification Request: March 3, 2023.

Reasonable Period of Time to Act on the Certification Request: One year (March 3, 2024).

If Alabama DEM fails or refuses to act on the water quality certification request on or before the above date, then the agency certifying authority is deemed waived pursuant to section 401(a)(1) of the Clean Water Act, 33 U.S.C. 1341(a)(1).

Dated: March 23, 2023.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2023–06520 Filed 3–28–23; 8:45 am]

BILLING CODE 6717–01–P

[1] 18 CFR 5.23(b).

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings #1

Take notice that the Commission received the following electric corporate filings:

Docket Numbers: EC23–66–000.

Applicants: Apple Blossom Wind, LLC, Black Oak Wind, LLC, Boulder Solar II, LLC, Cedar Creek II, LLC, Flat Ridge Interconnection LLC, Fowler Ridge II Wind Farm, LLC, Flat Ridge 3 Wind Energy LLC, Harry Allen Solar Energy LLC, Mehoopany Wind Energy LLC.

Description: Joint Application for Authorization Under Section 203 of the Federal Power Act of Apple Blossom Wind, LLC, et al.

Filed Date: 3/22/23.

Accession Number: 20230322–5182.

Comment Date: 5 p.m. ET 4/12/23.

Take notice that the Commission received the following exempt wholesale generator filings:

Docket Numbers: EG23–105–000.

Applicants: Partin Solar LLC.

Description: Partin Solar LLC submits Notice of Self–Certification of Exempt Wholesale Generator Status.

Filed Date: 3/22/23.

Accession Number: 20230322–5171.

Comment Date: 5 p.m. ET 4/12/23.

Docket Numbers: EG23–106–000.

Applicants: Desert Peak Energy Center, LLC.

Description: Desert Peak Energy Center, LLC submits Notice of Self–Certification of Exempt Wholesale Generator Status.

Filed Date: 3/22/23.

Accession Number: 20230322–5172.

Comment Date: 5 p.m. ET 4/12/23.

Docket Numbers: EG23–107–000.

Applicants: Desert Peak Energy Storage I, LLC.

Description: Desert Peak Energy Storage I, LLC submits Notice of Self–Certification of Exempt Wholesale Generator Status.

Filed Date: 3/22/23.

Accession Number: 20230322–5173.

Comment Date: 5 p.m. ET 4/12/23.

Docket Numbers: EG23–108–000.

Applicants: Desert Peak Energy Storage II, LLC.

Description: Desert Peak Energy Storage II, LLC submits Notice of Self–Certification of Exempt Wholesale Generator Status.

Filed Date: 3/22/23.

Accession Number: 20230322–5174.

Comment Date: 5 p.m. ET 4/12/23.

Take notice that the Commission received the following electric rate filings:

Docket Numbers: ER23–72–002.

Applicants: Omaha Public Power District, Southwest Power Pool, Inc.

Description: Tariff Amendment: Omaha Public Power District submits tariff filing per 35.17(b): Deficiency Response -Omaha Public Power Dist Revisions to Formula Rate Protocols to be effective 1/1/2024.

Filed Date: 3/23/23.

Accession Number: 20230323–5061.

Comment Date: 5 p.m. ET 4/13/23.

Docket Numbers: ER23–366–002

Applicants: PJM Interconnection, L.L.C.

Description: Tariff Amendment: Revised ISA, SA No. 2782; Queue No. W3–002 Supplemental Filing to be effective 11/7/2020.

Filed Date: 3/23/23.

Accession Number: 20230323–5091.

Comment Date: 5 p.m. ET 4/13/23.

Docket Numbers: ER23–938–001.

Applicants: Southwest Power Pool, Inc.

Description: Tariff Amendment: 3334R2 Associated Electric Cooperative NITSA and NOA to be effective 4/1/2023.

Filed Date: 3/23/23.

Accession Number: 20230323–5110.

Comment Date: 5 p.m. ET 4/13/23.

Docket Numbers: ER23–1440–000.

Applicants: PacifiCorp.

Description: Notice of Termination Filing of PacifiCorp.

Filed Date: 3/21/23.

Accession Number: 20230321–5181.

Comment Date: 5 p.m. ET 4/11/23.

Docket Numbers: ER23–1441–000.

Applicants: PJM Interconnection, L.L.C.

Description: § 205(d) Rate Filing: Original NSA, Service Agreement No. 6837; Queue No. AE1–104 to be effective 2/24/2023.

Filed Date: 3/23/23.

Accession Number: 20230323–5000.

Comment Date: 5 p.m. ET 4/13/23.

Docket Numbers: ER23–1442–000.

Applicants: Tucson Electric Power Company.

Description: § 205(d) Rate Filing: TEP EIM Errata Filing to be effective 5/3/2022.

Filed Date: 3/23/23.

Accession Number: 20230323–5050.

Comment Date: 5 p.m. ET 4/13/23.

Docket Numbers: ER23–1443–000.

Applicants: R–WS Antelope Valley Gen-Tie, LLC.

Description: § 205(d) Rate Filing: Large Generator Interconnection Agreement Co-Tenancy Agreement to be effective 3/24/2023.

Filed Date: 3/23/23.

Accession Number: 20230323–5053.

Comment Date: 5 p.m. ET 4/13/23.

Docket Numbers: ER23–1444–000.

Applicants: Midcontinent Independent System Operator, Inc.

Description: § 205(d) Rate Filing: 2023–03–23_Attachment L Virtual MWh Deadline Revision to be effective 5/23/2023.

Filed Date: 3/23/23.

Accession Number: 20230323–5057.

Comment Date: 5 p.m. ET 4/13/23.

Docket Numbers: ER23–1445–000.

Applicants: Hobnail Solar, LLC.

Description: Baseline eTariff Filing: Application for Market Based Rate to be effective 6/9/2023.

Filed Date: 3/23/23.

Accession Number: 20230323–5058.

Comment Date: 5 p.m. ET 4/13/23.

Docket Numbers: ER23–1446–000.

Applicants: New York Independent System Operator, Inc.

Description: § 205(d) Rate Filing: NYISO 205: Amended LGIA LIPA Calverton Solar Project SA2709 to be effective 3/9/2023.

Filed Date: 3/23/23.

Accession Number: 20230323–5072.

Comment Date: 5 p.m. ET 4/13/23.

Docket Numbers: ER23–1447–000.

Applicants: PJM Interconnection, L.L.C.

Description: § 205(d) Rate Filing: Original ISA, SA No. 6834; Queue No. AE2–113 to be effective 2/21/2023.

Filed Date: 3/23/23.

Accession Number: 20230323–5101.

Comment Date: 5 p.m. ET 4/13/23.

Docket Numbers: ER23–1448–000.

Applicants: Evergy Kansas Central, Inc.

Description: Tariff Amendment: Notice of Cancellation of Rate Schedule No. 331, Kansas Power Pool to be effective 12/31/2022.

Filed Date: 3/23/23.

Accession Number: 20230323–5124.

Comment Date: 5 p.m. ET 4/13/23.

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: March 23, 2023.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2023–06510 Filed 3–28–23; 8:45 am]

BILLING CODE 6717–01–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OLEM–2018–0693; FRL–10849–01–OMS]

Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Comment Request; Identification of Non-Hazardous Secondary Materials That Are Solid Waste (Renewal)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Environmental Protection Agency (EPA) has submitted an information collection request (ICR), Identification of Non-Hazardous Secondary Materials That Are Solid Waste (EPA ICR Number 2382.06, OMB Control Number 2050–0205) to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act. This is a proposed extension of the ICR, which is currently approved through March 31, 2023. Public comments were previously requested via the **Federal Register** on July 28, 2022 during a 60-day comment period. This notice allows for an additional 30 days for public comments.

DATES: Comments may be submitted on or before April 28, 2023.

ADDRESSES: Submit your comments, referencing Docket ID Number EPA–HQ–OLEM–2018–0693, to EPA online using *www.regulations.gov* (our preferred method), or by mail to: EPA Docket Center, Environmental Protection Agency, Mail Code 28221T, 1200 Pennsylvania Ave. 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.

Submit written comments and recommendations to OMB for the proposed information collection 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: Jesse Miller, Environmental Protection Agency, 1200 Pennsylvania Ave. NW,

Washington, DC 20460; telephone number: 202–566–0562; *miller.jesse@epa.gov@epa.gov.*

SUPPLEMENTARY INFORMATION: This is a proposed extension of the ICR, which is currently approved through March 31, 2023. 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.

Public comments were previously requested via the **Federal Register** on July 28, 2022 during a 60-day comment period (87 FR 45315). This notice allows for an additional 30 days for public comments. 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.*

Abstract: This ICR is a description of the information collection requirements for combustion units that use non-hazardous secondary materials (NHSM) that are solid wastes and combines and harmonizes prior regulatory amendments into one ICR. This ICR also includes the burden associated with the 2016 amendments to the Final Rule (81 FR 6688, February 8, 2016), which added three materials to the list of categorical non-waste fuels: (1) construction and demolition (C&D) wood processed from construction and demolition debris according to best management practices; (2) paper recycling residuals (PRRs) generated from the recycling of recovered paper, paperboard and corrugated containers and combusted by paper recycling mills whose boilers are designed to burn solid fuel; and (3) creosote-treated railroad ties that are processed and combusted in units designed to burn both biomass and fuel oil as part of normal operations and not solely as part of start-up or shut-down operations. Finally, this ICR includes the burden associated with the 2018 amendments to the Final Rule (83 FR 5317, February 7, 2018), which added three types of other treated railroad ties (OTRTs) to the list of categorical non-waste fuels: (1) Creosote-borate treated railroad ties, and mixtures of creosote, borate and copper naphthenate treated railroad ties that are processed and combusted in units designed to burn both biomass and fuel oil; (2) Copper naphthenate treated railroad ties that are processed and then combusted in units designed to burn biomass, biomass and fuel oil or biomass and coal; and (3) Copper naphthenate-borate treated railroad ties that are processed and then combusted in units designed to burn biomass, biomass and fuel oil or biomass and coal.

Form Numbers: None.

Respondents/affected entities: Entities potentially affected by this action are business or other for-profit organizations.

Respondent's obligation to respond: Required to obtain benefit (Sections 1004 and 2002 of RCRA).

Estimated number of respondents: 16.

Frequency of response: One-time.

Total estimated burden: 352 hours per year. Burden is defined at 5 CFR 1320.03(b).

Total estimated cost: $34,581 (per year), which includes $867 annualized capital or operation & maintenance costs.

Changes in the Estimates: There is a decrease of 516 hours in this renewal. This decrease is due to a drop in the number of respondents.

Courtney Kerwin,

Director, Regulatory Support Division.

[FR Doc. 2023–06539 Filed 3–28–23; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OAR–2007–1182; FRL–10851–01–OMS]

Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Comment Request; Emissions Certification and Compliance Requirements for Nonroad Compression-Ignition Engines and On-Highway Heavy Duty Engines (Renewal)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Environmental Protection Agency (EPA) has submitted an information collection request (ICR), Emissions Certification and Compliance Requirements for Nonroad Compression-ignition Engines and On-highway Heavy Duty Engines (EPA ICR Number 1684.21, OMB Control No. 2060–0287) to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act. This is a proposed extension of the ICR, which is currently approved through March 31, 2023. Public comments were previously requested via the **Federal Register** on January 27, 2023 during a 60-day comment period. This notice allows for an additional 30 days for public comments.

DATES: Comments may be submitted on or before April 28, 2023.

ADDRESSES: Submit your comments, referencing Docket ID Number EPA–HQ–OAR–2007–1182, to EPA online using *www.regulations.gov* (our preferred method), by email to *a-and-r-Docket@epa.gov,* or by mail to: EPA Docket Center, Environmental Protection Agency, Mail Code 28221T, 1200 Pennsylvania Ave. 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.

Submit written comments and recommendations to OMB for the proposed information collection 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: Nydia Yanira Reyes-Morales, Office of Transportation and Air Quality, Mail Code 6405J, Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460; telephone number: 202–343–9264; email address: *reyes-morales.nydia@epa.gov.*

SUPPLEMENTARY INFORMATION: This is a proposed extension of the ICR, which is currently approved through March 31, 2023. 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.

Public comments were previously requested via the **Federal Register** on January 27, 2023 during a 60-day comment period (88 FR 5334). This notice allows for an additional 30 days for public comments. 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.*

Abstract: Title II of the Clean Air Act, (42 U.S.C. 7521 *et seq.;* CAA), charges the Environmental Protection Agency (EPA) with issuing certificates of conformity for those engines and vehicles that comply with applicable emission requirements. The emission values achieved during certification testing may also be used in the Averaging, Banking, and Trading (ABT) Program. The program allows engine manufacturers to bank credits for engine families that emit below the standard and use the credits to certify engine families that emit above the standard. They may also trade banked credits with other manufacturers. Participation in the ABT program is voluntary.

The CAA also mandates EPA to verify that manufacturers have successfully translated their certified prototypes into mass-produced engines; and that these engines comply with emission standards throughout their useful lives. EPA verifies this through 'Compliance Programs' which include Production Line Testing (PLT), In-use Testing and Selective Enforcement Audits, (SEAs). In-use testing allows manufacturers and EPA to verify compliance with emission standards throughout an engine family's useful life. Through SEAs, EPA verifies that test data submitted by engine manufacturers is reliable and testing is performed according to EPA regulations.

Under the Transition Program for Equipment Manufacturers (TPEM), NRCI equipment manufacturers were able to delay compliance with Tier 4 standards for up to seven years as long as they comply with certain limitations. The program, has ended for all power categories. This includes hardship relief. All TPEM forms, except the reporting templates and the bond worksheet are being retired in this action. Participants are required to keep records ''for at least five full years after the final year in which allowances are available for each power category'' (40 CFR 1039.625(h).

The information requested is collected by the Compliance Division (CD), Office of Transportation and Air Quality, Office of Air and Radiation, EPA. CD uses this information to issue certificates of conformity and ensure that manufacturers comply with applicable regulations and the CAA. Some HD data is also used by the National Highway Traffic Safety Administration (NHTSA) to implement their programs under 49 U.S.C. 32902. EPA's and NHTSA's Office of Enforcement and Compliance Assurance and the Department of Justice may use the information for enforcement purposes.

Manufacturers may assert a claim of confidentiality over information provided to EPA. Confidentiality is granted in accordance with the Freedom of Information Act and EPA regulations at 40 CFR part 2.

Form Numbers: 5900–90, 5900–125, 5900–134, 5900–135, 5900–239, 5900–240, 5900–241, 5900–259, 5900–273, 5900–274, 5900–297, 5900–298, 5900–300, 5900–301, 55900–302, 5900–338, 5900–431, 5900–435, 5900–613, 5900–614, 6900–5414.

Estimated number of respondents: 568 (total).

Frequency of response: Quarterly, annually, and on occasion, depending on the type of response.

Total estimated burden: 142,054 hours per year. Burden is defined at 5 CFR 1320.03(b).

Total estimated cost: $29,109,404 (per year), includes an estimated $16,146,726 annualized capital or maintenance and operational costs.

Changes in the Estimates: There is a net decrease of 19,671 hours in the total estimated burden for ICR 1684.21 from the burden currently identified in the OMB Inventory of Approved ICR Burdens of 161,725 for the previous ICR 1684.20 due to a 99% decrease in burden (14,547 hours) related to TPEM as the program has ended, a correction of a mistake in the certification burden calculations and an increase proportion of carry-over applications to new applications.

Courtney Kerwin,

Director, Regulatory Support Division.

[FR Doc. 2023–06543 Filed 3–28–23; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OAR–2022–0071; FRL–10836–01–OMS]

Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Comment Request; NSPS for Rubber Tire Manufacturing (Renewal)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Environmental Protection Agency has submitted an information collection request (ICR), NSPS for Rubber Tire Manufacturing (EPA ICR Number 1158.14, OMB Control Number 2060–0156), to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act. This is a proposed extension of the ICR, which is currently approved through March 31, 2023. Public comments were previously requested, via the **Federal Register**, on July 22, 2022 during a 60-day comment period. This notice allows for an additional 30 days for public comments.

DATES: Comments may be submitted on or before April 28, 2023.

ADDRESSES: Submit your comments, referencing Docket ID Number EPA–HQ–OAR–2022–0071, to EPA online using *https://www.regulations.gov/* (our preferred method), or by email to *docket@epa.gov,* or by mail to: EPA Docket Center, Environmental Protection Agency, Mail Code 28221T, 1200 Pennsylvania Ave. 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.

Submit written comments and recommendations to OMB for the proposed information collection 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: Muntasir Ali, Sector Policies and Program Division (D243–05), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–0833; email address: *ali.muntasir@epa.gov.*

SUPPLEMENTARY INFORMATION: This is a proposed extension of the ICR, which is currently approved through March 31, 2023. An Agency may neither conduct nor sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Public comments were previously requested, via the **Federal Register** (87 FR 43843), on July 22, 2022 during a 60-day comment period. This notice allows for an additional 30 days for public comments. 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 *https://www.regulations.gov,* or in person, at the EPA Docket Center, WJC West Building, 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.*

Abstract: The New Source Performance Standards (NSPS) for Rubber Tire Manufacturing (40 CFR part 60, subpart BBB) were proposed on January 20, 1983; promulgated on September 15, 1987; and amended on both September 19, 1989, and October 17, 2000. These regulations apply to both existing and new facilities with the following processes: under-tread cementing operations, sidewall cementing operations, tread end cementing operations, bead cementing operations, green tire spraying operations, Michelin-A operations, Michelin-B operations, and Michelin-C automatic operations. New facilities include those that commenced either construction or reconstruction after the date of proposal. Affected facilities include those that commenced either construction, or modification, or reconstruction after January 20, 1983. This information is being collected to assure compliance with 40 CFR part 60, subpart BBB.

In general, all NSPS standards require initial notifications, performance tests, and periodic reports by the owners/operators of the affected facilities. They are also required to maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility, or any period during which the monitoring system is inoperative. These notifications, reports, and records are essential in determining compliance, and are required of all affected facilities subject to NSPS.

Form Numbers: None.

Respondents/affected entities: Owners and operators of the rubber tire manufacturing industry.

Respondent's obligation to respond: Mandatory (40 CFR part 60, subpart BBB).

Estimated number of respondents: 41 (total).

Frequency of response: Initially, occasionally, semiannually, and annually.

Total estimated burden: 17,700 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: $2,150,000 (per year), which includes $18,600 in annualized capital/startup and/or operation & maintenance costs.

Changes in the Estimates: There is no change in burden from the most recently-approved ICR as currently identified in the OMB Inventory of Approved Burdens. This is due to two considerations: (1) the regulations have not changed over the past three years and are not anticipated to change over the next three years; and (2) the growth rate for this industry is very low or non-existent, so there is no significant change in the overall burden. Since there are no changes in the regulatory requirements and there is no significant industry growth, there are also no changes in the capital/startup costs. There is an increase in O&M costs due to an adjustment from 2007 to 2020 dollars using the CEPCI Equipment Cost Index.

Courtney Kerwin,

Director, Regulatory Support Division.

[FR Doc. 2023–06541 Filed 3–28–23; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OPP–2022–0223; FRL–10431–01–OCSPP]

Product Cancellation Order for Certain Pesticide Registrations

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: This document announces EPA's order for the cancellation, voluntarily requested by the registrant and accepted by the Agency, of the product listed in Table 1 of Unit II, pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). This cancellation order follows a May 6, 2022, **Federal Register** Notice of Receipt of Request from the registrant listed in Table 2 of Unit II, to voluntarily cancel this product registration. In the May 6, 2022, notice, EPA indicated that it would issue an order implementing the cancellation, unless the Agency received substantive comments within the 180-day comment period that would merit its further review of the request, or unless the registrant withdrew their request. The Agency received a comment on the May document, but none merited its further review of the request. Further, the registrant did not withdraw their request. Accordingly, EPA hereby issues in this document a cancellation order granting the requested cancellation. Any distribution, sale, or use of the product subject to this cancellation order is permitted only in accordance with the terms of this order, including any existing stocks provisions.

DATES: The cancellations are applicable March 29, 2023.

FOR FURTHER INFORMATION CONTACT: Christopher Green, Registration Division (7505T), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460–0001; telephone number: (202) 566–2707; email address: *green.christopher@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 cancellation, as requested by the registrant, of a product registered under FIFRA section 3 (7 U.S.C. 136a). This registration is listed in sequence by registration number in Table 1 of this unit.

TABLE 1—PRODUCT CANCELLATIONS

Registration No.	Company No.	Product name	Active ingredients
432–1623	432	Storcide II Grain, Bin and Warehouse Insecticide	Chlorpyrifos-methyl 21.6% & Deltamethrin 3.7%.

Table 2 of this unit includes the name and address of record for the registrant of the product in Table 1 of this unit, in sequence by EPA company number. This number corresponds to the first part of the EPA registration number of the product listed in Table 1 of this unit.

TABLE 2—REGISTRANTS OF CANCELLED PRODUCTS

EPA Company No.	Company name and address
432	Bayer Environmental Science A Division of Bayer CropScience, LP, 700 Chesterfield Parkway West, Chesterfield, MO 63017.

III. Summary of Public Comments Received and Agency Response to Comments

One anonymous comment was received agreeing with the cancellation of the pesticide product in this document. For this reason, the Agency does not believe that the comment submitted during the comment period merits further review or a denial of the request for voluntary cancellation.

IV. Cancellation Order

Pursuant to FIFRA section 6(f) (7 U.S.C. 136d(f)), EPA hereby approves the requested cancellation of the registration identified in Table 1 of Unit II. Accordingly, the Agency hereby orders that the product registration identified in Table 1 of Unit II, is canceled. The applicable date of the cancellation that is the subject of this document is March 29, 2023. Any distribution, sale, or use of existing stocks of the product identified in Table 1 of Unit II, in a manner inconsistent with any of the provisions for disposition of existing stocks set forth in Unit VI, will be a violation of FIFRA.

V. What is the Agency's authority for taking this action?

FIFRA section 6(f)(1) (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 canceled or amended to terminate one or more 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**. Thereafter, following the public comment period, the EPA Administrator may approve such a request. The notice of receipt for this action was published for comment in the **Federal Register** of May 6, 2022, (87 FR 27145) (FRL–9724–01). The comment period closed on November 2, 2022.

VI. Provisions for Disposition of Existing Stocks

Existing stocks are those stocks of registered pesticide products which are currently in the United States, and which were packaged, labeled, and released for shipment prior to the effective date of the cancellation action. The existing stocks provisions for the product subject to this order is as follows.

The registrant may continue to sell and distribute existing stocks of product listed in Table 1 of Unit II, until March 29, 2024, which is 1 year after the publication of the Cancellation Order in the **Federal Register**. Thereafter, the registrant is prohibited from selling or distributing the product listed in Table 1, except for export in accordance with FIFRA section 17 (7 U.S.C. 136o), or proper disposal. Persons other than the registrant may sell, distribute, or use existing stocks of product listed in Table 1 of Unit II, until existing stocks are exhausted, provided that such sale, distribution, or use is consistent with the terms of the previously approved labeling on, or that accompanied, the canceled product.

Authority: 7 U.S.C. 136 *et seq.*

Dated: March 22, 2023.

Daniel Rosenblatt,

Acting Director, Registration Division, Office of Pesticide Programs.

[FR Doc. 2023–06459 Filed 3–28–23; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[FRL–10573–02–OAR; EPA–HQ–OAR–2023–0014, SAN 10573]

Clean Air Act Advisory Committee (CAAAC): Request for Nominations

AGENCY: Environmental Protection Agency (EPA).

ACTION: Request for nominations to the Clean Air Act Advisory Committee (CAAAC).

SUMMARY: The U.S. Environmental Protection Agency (EPA) invites nominations from a diverse range of qualified candidates to be considered for appointment to its Clean Air Act Advisory Committee (CAAAC). Vacancies are anticipated to be filled by August 2023. Sources in addition to this **Federal Register** notice may also be utilized in the solicitation of nominees. This notice extends the recruitment period to receive additional nominees.

DATES: Application due by April 30, 2023.

ADDRESSES: Submit nominations in writing to: Lorraine Reddick, Designated Federal Officer, Office of Air and Radiation, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington, DC 20460.

FOR FURTHER INFORMATION CONTACT: Lorraine Reddick, Designated Federal Officer, Clean Air Act Advisory Committee (6103A), Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460; telephone number: 202–564–1293; email address: *reddick.lorraine@epa.gov.*

SUPPLEMENTARY INFORMATION:

Background: Clean Air Act Advisory Committee provides advice, information and recommendations on policy and technical issues associated with implementation of the Clean Air Act (CAA) as requested by EPA. These issues include the development, implementation, and enforcement of programs required by the Act. The CAAAC will provide advice and recommendations on approaches for new and expanded programs including those using innovative technologies and policy mechanisms to achieve environmental improvements; the

potential health, environmental and economic effects of CAA programs on the public, the regulated community, State and local governments, and other Federal agencies; the policy and technical contents of proposed major EPA rulemaking and guidance required by the Act in order to help effectively incorporate appropriate outside advice and information; and the integration of existing policies, regulations, standards, guidelines, and procedures into programs for implementing requirements of the Act.

The programs falling under the purview of the committee include, but are not limited to, those for meeting National Ambient Air Quality Standards, reducing emissions from vehicles and vehicle fuels, reducing air toxic emissions, permitting, carrying out compliance authorities, and CAA-related voluntary activities. Members are appointed by the EPA Administrator for two-year terms with the possibility of reappointment to additional term(s). The CAAAC usually meets approximately 2 times annually and the average workload for the members is approximately 5 to 10 hours per month.

Although EPA is unable to offer compensation or an honorarium for CAAAC members, they may receive travel and per diem allowances, according to applicable federal travel regulations.

EPA is seeking nominations from academia, industry, non-governmental/environmental organizations, community organizations, state and local government agencies, tribal governments, unions, trade associations, utilities, and lawyers/consultants. EPA values and welcomes diversity. In an effort to obtain nominations of diverse candidates, EPA encourages nominations of women and men of all racial and ethnic groups.

Evaluation Criteria

The following criteria will be used to evaluate nominees:

- The background and experiences that would help members contribute to the diversity of perspectives on the committee (*e.g.,* geographic, economic, social, cultural, educational, and other considerations)
- Experience serving as an elected official;
- Experience serving as an appointed official for a state, county, city or tribe;
- Experience working on national level or on local government issues;
- Demonstrated experience with air quality policy issues;
- Executive management level experience with membership in broad-based networks;
- Excellent interpersonal, oral and written communication, and consensus-building skills.
- Ability to volunteer time to attend meetings 2–3 times a year, participate in teleconference meetings, attend listening sessions with the Administrator or other senior-level officials;
- Ability to work with others with varying perspectives to develop policy recommendations to the Administrator, and prepare reports and advice letters.

Nominations must include a resume and a short biography describing the professional and educational qualifications of the nominee, as well as the nominee's current business/home address, email address, and daytime telephone number. Interested candidates may self-nominate. All application items are due by April 30, 2023. Please note that EPA's policy is that, unless otherwise prescribed by statute, members generally are appointed to two-year terms. To help the Agency in evaluating the effectiveness of our outreach efforts, please also tell us how you learned of this opportunity.

For further information or to email nominations, include in the subject line CAAAC Membership 2023 and send to *caaac@epa.gov.*

Dated: March 23, 2023.

Lorraine Reddick,

Designated Federal Officer, Clean Air Act Advisory Committee, Office of Air and Radiation.

[FR Doc. 2023–06427 Filed 3–28–23; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

[FR ID 133943]

Privacy Act of 1974; Matching Program

AGENCY: Federal Communications Commission.

ACTION: Notice of Establishment of a Matching Program.

SUMMARY: In accordance with the Privacy Act of 1974, as amended (''Privacy Act''), this document announces the establishment of a computer matching program the Federal Communications Commission (''FCC'' or ''Commission'' or ''Agency'') and the Universal Service Administrative Company (USAC) will conduct with the Minnesota Department of Human Services (''Minnesota''). The purpose of this matching program is to verify the eligibility of applicants to and subscribers of the Universal Service Fund (USF) Lifeline program, which is administered by USAC under the direction of the FCC. More information about this program is provided in the **SUPPLEMENTARY INFORMATION** section below.

DATES: Written comments are due on or before April 28, 2023. This computer matching program will commence on April 28, 2023, and will conclude 18 months later.

ADDRESSES: Send comments to Elliot Tarloff, FCC, 45 L Street NE, Washington, DC 20554, or *Privacy@fcc.gov.*

FOR FURTHER INFORMATION CONTACT: Elliot Tarloff at 202–418–0886 or *Privacy@fcc.gov.*

SUPPLEMENTARY INFORMATION: The Lifeline program provides support for discounted broadband and voice services to low-income consumers. Lifeline is administered by the Universal Service Administrative Company (USAC) under FCC direction. Consumers qualify for Lifeline through proof of income or participation in a qualifying program, such as Medicaid, the Supplemental Nutritional Assistance Program (SNAP), Federal Public Housing Assistance, Supplemental Security Income (SSI), Veterans and Survivors Pension Benefit, and/or various Tribal-specific federal assistance programs. In a Report and Order adopted on March 31, 2016, the Commission ordered USAC to create a National Lifeline Eligibility Verifier (''National Verifier''), including the National Lifeline Eligibility Database (LED), that would match data about Lifeline applicants and subscribers with other data sources to verify the eligibility of an applicant or subscriber. The Commission found that the National Verifier would reduce compliance costs for Lifeline service providers, improve service for Lifeline subscribers, and reduce waste, fraud, and abuse in the program. The purpose of this particular matching program is to verify Lifeline eligibility by establishing that applicants or subscribers in Minnesota are enrolled in the SNAP or Medicaid programs.

Participating Non-Federal Agency

- Minnesota Department of Human Services.

Authority for Conducting the Matching Program

47 U.S.C. 254; 47 CFR 54.400 *et seq.;* Lifeline and Link Up Reform and Modernization, et al., Third Report and Order, Further Report and Order, and Order on Reconsideration, 31 FCC Rcd

3962, 4006–21, paras. 126–66 (2016) (2016 Lifeline Modernization Order).

Purpose(s)

In the 2016 Lifeline Modernization Order, the FCC required USAC to develop and operate the National Verifier to improve efficiency and reduce waste, fraud, and abuse in the Lifeline program. The stated purpose of the National Verifier is ''to increase the integrity and improve the performance of the Lifeline program for the benefit of a variety of Lifeline participants, including Lifeline providers, subscribers, states, community-based organizations, USAC, and the Commission.'' 31 FCC Rcd 3962, 4006, para. 126. To help determine whether Lifeline applicants and subscribers are eligible for Lifeline benefits, the Order contemplates that the USAC-operated LED will communicate with information systems and databases operated by other Federal and State agencies. Id. at 4011–2, paras. 135–7.

Categories of Individuals

The categories of individuals whose information is involved in the matching program include, but are not limited to, those individuals (residing in a single household) who have applied for Lifeline benefits; are currently receiving Lifeline benefits; are individuals who enable another individual in their household to qualify for Lifeline benefits; are minors whose status qualifies a parent or guardian for Lifeline benefits; are individuals who have received Lifeline benefits; or are individuals acting on behalf of an eligible telecommunications carrier (ETC) who have enrolled individuals in the Lifeline program.

Categories of Records

The categories of records involved in the matching program include, but are not limited to, the last four digits of the Lifeline applicant's Social Security Number, date of birth, and first and last name. The National Verifier will transfer these data elements to the Minnesota Department of Human Services which will respond either ''yes'' or ''no'' that the individual is enrolled in a Lifeline-qualifying assistance program: SNAP or Medicaid.

System(s) of Records

The USAC records shared as part of this matching program reside in the Lifeline system of records, FCC/WCB–1, Lifeline Program, a notice of which the FCC published at 86 FR 11526 (Feb. 25, 2021).

Federal Communications Commission.

Marlene Dortch,

Secretary.

[FR Doc. 2023–06519 Filed 3–28–23; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL RESERVE SYSTEM

Agency Information Collection Activities: Announcement of Board Approval Under Delegated Authority and Submission to OMB

AGENCY: Board of Governors of the Federal Reserve System.

SUMMARY: The Board of Governors of the Federal Reserve System (Board) is adopting a proposal to extend for three years, without revision, the Recordkeeping and Disclosure Requirements Associated with Regulation RR (FR RR; OMB No. 7100–0372).

FOR FURTHER INFORMATION CONTACT: Federal Reserve Board Clearance Officer—Nuha Elmaghrabi—Office of the Chief Data Officer, Board of Governors of the Federal Reserve System, *nuha.elmaghrabi@frb.gov,* (202) 452–3884.

Office of Management and Budget (OMB) Desk Officer for the Federal Reserve Board, Office of Information and Regulatory Affairs, Office of Management and Budget, New Executive Office Building, Room 10235, 725 17th Street NW, Washington, DC 20503, or by fax to (202) 395–6974.

SUPPLEMENTARY INFORMATION: On June 15, 1984, OMB delegated to the Board authority under the Paperwork Reduction Act (PRA) to approve and assign OMB control numbers to collections of information conducted or sponsored by the Board. Board-approved collections of information are incorporated into the official OMB inventory of currently approved collections of information. The OMB inventory, as well as copies of the PRA Submission, supporting statements (which contain more detailed information about the information collections and burden estimates than this notice), and approved collection of information instrument(s) are available at *https://www.reginfo.gov/public/do/PRAMain.* These documents are also available on the Federal Reserve Board's public website at *https://www.federalreserve.gov/apps/reportingforms/home/review* or may be requested from the agency clearance officer, whose name appears above.

Final Approval Under OMB Delegated Authority of the Extension for Three Years, Without Revision, of the Following Information Collection

Collection title: Recordkeeping and Disclosure Requirements Associated with Regulation RR.

Collection identifier: FR RR.

OMB control number: 7100–0372.

General description of collection: In 2014, the Board, Office of the Comptroller of the Currency, Federal Deposit Insurance Corporation, U.S. Securities and Exchange Commission, Federal Housing Finance Agency, and Department of Housing and Urban Development adopted a joint final rule (credit risk retention rule) that implemented the credit risk retention requirements of section 15G of the Securities Exchange Act of 1934,[1] which was added by section 941 of the Dodd-Frank Wall Street Reform and Consumer Protection Act.[2] The Board's credit risk retention rule, which applies to any securitizer of asset-backed securities (securitizer) that is a state member bank or a subsidiary of a state member bank, is codified in the Board's Regulation RR—Credit Risk Retention (12 CFR part 244). Regulation RR includes a number of mandatory recordkeeping and disclosure requirements.[3]

Frequency: Annual, event-generated.

Respondents: Securitizers that are, or are a subsidiary of, a state member bank.

Total estimated number of respondents: 1.

Total estimated annual burden hours: 340.[4]

Current actions: On November 23, 2022, the Board published a notice in the **Federal Register** (87 FR 71637) requesting public comment for 60 days on the extension, without revision, of the FR RR. The comment period for this notice expired on January 23, 2023. The Board did not receive any comments.

[1] 15 U.S.C. 78o–11.

[2] Public Law 111–203, 124 Stat. 1376 (2010).

[3] The FR RR previously took burden for the SEC's credit risk retention rule insofar as it applies to securitizers that are, or are a subsidiary of, a bank holding company, savings and loan holding company, intermediate holding company, Edge or agreement corporation, foreign banking organization, or nonbank financial company supervised by the Board. The extension of the FR RR does not include burden for the SEC's rule, because it is not a collection of information conducted or sponsored by the Board.

[4] More detailed information regarding this collection, including more detailed burden estimates, can be found in the OMB Supporting Statement posted at *https://www.federalreserve.gov/apps/reportingforms/home/review.* On the page displayed at the link, you can find the OMB Supporting Statement by referencing the collection identifier, FR RR.

Board of Governors of the Federal Reserve System, March 24, 2023.

Michele Taylor Fennell,

Deputy Associate Secretary of the Board.

[FR Doc. 2023–06545 Filed 3–28–23; 8:45 am]

BILLING CODE 6210–01–P

FEDERAL RESERVE SYSTEM

Change in Bank Control Notices; Acquisitions of Shares of a Bank or Bank Holding Company

The notificants listed below have applied under the Change in Bank Control Act (Act) (12 U.S.C. 1817(j)) and § 225.41 of the Board's Regulation Y (12 CFR 225.41) to acquire shares of a bank or bank holding company. The factors that are considered in acting on the applications are set forth in paragraph 7 of the Act (12 U.S.C. 1817(j)(7)).

The public portions of the applications listed below, as well as other related filings required by the Board, if any, are available for immediate inspection at the Federal Reserve Bank(s) indicated below and at the offices of the Board of Governors. This information may also be obtained on an expedited basis, upon request, by contacting the appropriate Federal Reserve Bank and from the Board's Freedom of Information Office at *https://www.federalreserve.gov/foia/request.htm.* Interested persons may express their views in writing on the standards enumerated in paragraph 7 of the Act.

Comments regarding each of these applications must be received at the Reserve Bank indicated or the offices of the Board of Governors, Ann E. Misback, Secretary of the Board, 20th Street and Constitution Avenue NW, Washington, DC 20551–0001, not later than April 13, 2023.

A. Federal Reserve Bank of Chicago (Colette A. Fried, Assistant Vice President) 230 South LaSalle Street, Chicago, Illinois 60690–1414:

1. *Dierk Halverson, Coon Rapids, Iowa; John Chrystal, Aspen, Colorado; and Steven Spotts, Sac City, Iowa;* to acquire additional voting shares of Sac City Limited, and thereby indirectly acquire additional voting shares of Iowa State Bank, both of Sac City, Iowa, as part of a group acting in concert that includes Timothy O. Lee, Coon Rapids, Iowa.

Board of Governors of the Federal Reserve System.

Michele Taylor Fennell,

Deputy Associate Secretary of the Board.

[FR Doc. 2023–06488 Filed 3–28–23; 8:45 am]

BILLING CODE P

FEDERAL TRADE COMMISSION

Agency Information Collection Activities; Proposed Collection; Comment Request; Extension

AGENCY: Federal Trade Commission.

ACTION: Notice.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995 (PRA), the Federal Trade Commission (FTC or Commission) is seeking public comment on its proposal to extend for an additional three years the Office of Management and Budget clearance for its shared enforcement authority with the Consumer Financial Protection Bureau (CFPB) for information collection requirements contained in the CFPB's Regulation O. The current clearance expires on March 31, 2023.

DATES: Comments must be filed by April 28, 2023.

ADDRESSES: Interested parties may file a comment online or on paper, by following the instructions in the Request for Comment part of the **SUPPLEMENTARY INFORMATION** section below. 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. The *reginfo.gov* web link is a United States Government website produced by the Office of Management and Budget (OMB) and the General Services Administration (GSA). Under PRA requirements, OMB's Office of Information and Regulatory Affairs (OIRA) reviews Federal information collections.

FOR FURTHER INFORMATION CONTACT: Stephanie Rosenthal, Division of Financial Practices, Bureau of Consumer Protection, Federal Trade Commission, 600 Pennsylvania Ave. NW, Washington, DC 20580, (202) 326–3332.

SUPPLEMENTARY INFORMATION:

Title: Regulation O, 12 CFR part 1015.

OMB Control Number: 3084–0157.

Type of Review: Extension of currently approved collection.

Estimated Number of Respondents: 118.

Estimated Annual Burden Hours: 354 (FTC share).

Estimated Annual Labor Cost: $12,195 (FTC share).

Abstract: The FTC and CFPB share enforcement authority for the Mortgage Assistance Relief Services (Regulation O), 12 CFR part 1015.[1] The rule includes disclosure requirements to assist purchasers of mortgage assistance relief services in making well-informed decisions and avoiding unfair or deceptive acts and practices. The information that must be retained under Regulation O's recordkeeping requirements is used by the CFPB and the FTC for enforcement purposes and to ensure compliance by MARS providers with Regulation O. The information is requested only on a case-by-case basis.

Request for Comment

On January 9, 2023, the FTC sought public comment on the information collection requirements associated with the Rule. 88 FR 1234. No germane comments were received. Pursuant to the OMB regulations, 5 CFR part 1320, that implement the PRA, 44 U.S.C. 3501 *et seq.,* the FTC is providing this second opportunity for public comment while seeking OMB approval to renew the pre-existing clearance for the Rule.

Your comment—including your name and your state—will be placed on the public record of this proceeding. Because your comment will be made public, you are solely responsible for making sure that your comment does not include any sensitive personal information, such as anyone's Social Security number; date of birth; driver's license number or other state identification number, or foreign country equivalent; passport number; financial account number; or credit or debit card number. You are also solely responsible for making sure that your comment does not include any sensitive health information, such as medical records or other individually identifiable health information. In addition, your comment should not include any ''trade secret or any commercial or financial information which . . . is privileged or confidential''—as provided by Section 6(f) of the FTC Act, 15 U.S.C. 46(f), and FTC Rule 4.10(a)(2), 16 CFR 4.10(a)(2)—including in particular competitively sensitive information such as costs, sales statistics, inventories, formulas,

[1] Title X of the Dodd-Frank Wall Street Reform and Consumer Protection Act (''Dodd-Frank Act''), Public Law 111–203, 124 Stat. 1376 (2010), transferred the Commission's rulemaking authority under the mortgage provisions in section 626 of the 2009 Omnibus Appropriations Act, as amended, to the CFPB. On December 16, 2011, the CFPB republished the Mortgage Assistance Relief Services (''MARS'') Rule as Regulation O (12 CFR pt. 1015). As a result, the Commission subsequently rescinded its MARS Rule (16 CFR pt. 322). Nonetheless, under the Dodd-Frank Act, the FTC retains its authority to bring law enforcement actions to enforce Regulation O.

patterns, devices, manufacturing processes, or customer names.

Josephine Liu,

Assistant General Counsel for Legal Counsel.

[FR Doc. 2023–06451 Filed 3–28–23; 8:45 am]

BILLING CODE 6750–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Agency for Healthcare Research and Quality

Agency Information Collection Activities: Proposed Collection; Comment Request

AGENCY: Agency for Healthcare Research and Quality, HHS.

ACTION: Notice.

SUMMARY: This notice announces the intention of the Agency for Healthcare Research and Quality (AHRQ) to request that the Office of Management and Budget (OMB) approve the proposed information collection project ''AHRQ Research Reporting System (ARRS).'' The purpose of this notice is to allow 60 days for public comment.

DATES: Comments on this notice must be received by May 30, 2023.

ADDRESSES: Written comments should be submitted to: Doris Lefkowitz, Reports Clearance Officer, AHRQ, by email at *doris.lefkowitz@AHRQ.hhs.gov.*

FOR FURTHER INFORMATION CONTACT: Doris Lefkowitz, AHRQ Reports Clearance Officer, (301) 427–1477, or by email at *doris.lefkowitz@AHRQ.hhs.gov.*

SUPPLEMENTARY INFORMATION:

Proposed Project

AHRQ Research Reporting System (ARRS)

AHRQ has developed a systematic method for its grantees to report project progress and important preliminary findings for grants funded by the Agency. This system, the AHRQ Research Reporting System (ARRS), previously known as the Grants Reporting System (GRS), was last approved by OMB on August 31, 2020. The system addressed the shortfalls in the previous reporting process and established a consistent and comprehensive reporting solution for grants in AHRQ. The ARRS provides a centralized repository of grants research progress and additional information that can be used to support initiatives within the Agency. This includes future research planning and support for administrative activities such as performance monitoring, budgeting, and knowledge transfer, as well as for strategic planning.

This Project has the following goals:

(1) To promote the transfer of critical information more frequently and efficiently and enhance the Agency's ability to support research designed to improve the outcomes and quality of health care, reduce its costs, and broaden access to effective services.

(2) To increase the efficiency of the Agency in responding to ad-hoc information requests.

(3) To support Executive Branch requirements for increased transparency and public reporting.

(4) To establish a consistent approach throughout the Agency for information collection regarding grant progress and a systematic basis for oversight and for facilitating potential collaborations among grantees.

(5) To decrease the inconvenience and burden on grantees of unanticipated ad-hoc requests for information by the Agency in response to particular (one-time) internal and external requests for information.

This project is being conducted by AHRQ through its contractor, Science Applications International Corporation, Inc, pursuant to AHRQ's statutory authority to conduct and support research on health care and on systems for the delivery of such care, including activities with respect to the quality, effectiveness, efficiency, appropriateness, and value of healthcare services and with respect to quality measurement and improvement. 42 U.S.C 299a(a)(1) and (2)

Method of Collection

Grantees use the ARRS system to report project progress and important preliminary findings for grants funded by the Agency. Grantees submit progress reports on a monthly or quarterly basis, which are reviewed by AHRQ personnel. All users access the ARRS system through a secure online interface which requires a user id and password entered through the ARRS Login screen. When status reports are due AHRQ notifies Principal Investigators (PI) via email.

The ARRS is an automated user-friendly resource that is utilized by AHRQ staff for preparing, distributing, and reviewing reporting requests to grantees for the purpose of information sharing. AHRQ personnel are able to systematically search the information collected and stored in the ARRS database. Personnel will also use the information to address internal and/or external requests for information regarding grant progress, preliminary findings, and other requests, such as Freedom of Information Act requests, and producing responses related to federally mandated programs and regulations.

Estimated Annual Respondent Burden

Exhibit 1 shows the estimated annualized burden hours for the respondents. It will take grantees an estimated 15 minutes to enter the necessary data into the ARRS System. Frequency of reporting varies from monthly to once a year. The total number of responses submitted for the past year is considered for this estimation. Based on that, the total annualized burden hours are estimated to be 125 hours.

Exhibit 2 shows the estimated annualized cost burden for the respondents. The total estimated cost burden for respondents is $5,475.

EXHIBIT 1—ESTIMATED ANNUALIZED BURDEN HOURS

Form name	Number of responses	Hours per response	Total burden hours
Data entry into ARRS	500	15/60	125
Total	500	N/A	125

EXHIBIT 2—ESTIMATED ANNUALIZED COST BURDEN

Form name	Number of responses	Total burden hours	Average hourly wage rate *	Total cost burden
Data entry into ARRS	500	125	$43.80	$5,475
Total	500	125	N/A	5,475

* Based upon the average wages for Healthcare Practitioner and Technical Occupations (29–0000), ''National Compensation Survey: Occupational Wages in the United States, May 2021,'' U.S. Department of Labor, Bureau of Labor Statistics, *http://www.bls.gov/oes/current/oes_nat.htm#29-0000.*

Request for Comments

In accordance with the Paperwork Reduction Act, 44 U.S.C. 3501–3520, comments on AHRQ's information collection are requested with regard to any of the following: (a) whether the proposed collection of information is necessary for the proper performance of AHRQ's health care research and health care information dissemination functions, including whether the information will have practical utility; (b) the accuracy of AHRQ's estimate of burden (including hours and costs) of the proposed collection(s) of information; (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 upon the respondents, including the use of automated collection techniques or other forms of information technology.

Comments submitted in response to this notice will be summarized and included in the Agency's subsequent request for OMB approval of the proposed information collection. All comments will become a matter of public record.

Dated: March 21, 2023.

Marquita Cullom,

Associate Director.

[FR Doc. 2023–06421 Filed 3–28–23; 8:45 am]

BILLING CODE 4160–90–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2023–D–0488]

Orthopedic Non-Spinal Bone Plates, Screws, and Washers—Premarket Notification (510(k)) Submissions; Draft Guidance for Industry and Food and Drug Administration Staff; 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 the draft guidance entitled ''Orthopedic Non-Spinal Bone Plates, Screws, and Washers—Premarket Notification (510(k)) Submissions.'' This draft guidance document provides recommendations for information to include in 510(k) submissions for non-resorbable bone plate, screw, and washer devices. The scope of this draft guidance includes devices that are indicated for orthopedic bone fixation but does not include devices indicated for spinal, mandibular, maxillofacial, cranial, and orbital fracture fixation. This draft guidance is not final nor is it for implementation at this time.

DATES: Submit either electronic or written comments on the draft guidance by May 30, 2023 to ensure that the Agency considers your comment on this draft guidance before it begins work on the final version of the guidance.

ADDRESSES: You may submit comments on any guidance 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–2023–D–0488] for ''Orthopedic Non-Spinal Bone Plates, Screws, and Washers—Premarket Notification (510(k)) Submissions.'' 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, 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.

You may submit comments on any guidance at any time (see 21 CFR 10.115(g)(5)).

An electronic copy of the guidance document is available for download from the internet. See the **SUPPLEMENTARY INFORMATION** section for information on electronic access to the guidance. Submit written requests for a single hard copy of the draft guidance document entitled ''Orthopedic Non-Spinal Bone Plates, Screws, and Washers—Premarket Notification (510(k)) Submissions'' to the Office of Policy, Center for Devices and Radiological Health, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 66, Rm. 5431, Silver Spring, MD 20993–0002. Send one self-addressed adhesive label to assist that office in processing your request.

FOR FURTHER INFORMATION CONTACT: Mahlet Zinah, Center for Devices and Radiological Health, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 66, Rm. 4452, Silver Spring, MD 20993–0002, 240–402–2623.

SUPPLEMENTARY INFORMATION:

I. Background

Non-spinal, non-resorbable bone plates, screws, and washers are implants intended for bone fixation. These are class II medical devices for which the safety and effectiveness are well-established. This draft guidance provides recommendations for the content and organization of premarket notification (510(k)) submissions including the information FDA recommends industry include in a 510(k) submission for these device types (*e.g.,* non-clinical testing, sterility, reprocessing, biocompatibility). This draft guidance is intended to facilitate consistency in information provided in submissions by addressing common deficiencies related to device description and performance testing and by identifying applicable cross-cutting guidances and consensus standards.

This draft guidance is being issued consistent with FDA's good guidance practices regulation (21 CFR 10.115). The draft guidance, when finalized, will represent the current thinking of FDA on ''Orthopedic Non-Spinal Bone Plates, Screws, and Washers—Premarket Notification (510(k)) Submissions.'' 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. Electronic Access

Persons interested in obtaining a copy of the draft guidance may do so by downloading an electronic copy from the internet. A search capability for all Center for Devices and Radiological Health guidance documents is available at *https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/guidance-documents-medical-devices-and-radiation-emitting-products.* This guidance document is also available at *https://www.regulations.gov* and *https://www.fda.gov/regulatory-information/search-fda-guidance-documents.* Persons unable to download an electronic copy of ''Orthopedic Non-Spinal Bone Plates, Screws, and Washers—Premarket Notification (510(k)) Submissions'' may send an email request to *CDRH-Guidance@fda.hhs.gov* to receive an electronic copy of the document. Please use the document number GUI00019023 and complete title to identify the guidance you are requesting.

III. Paperwork Reduction Act of 1995

While this guidance contains no new 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 the following FDA regulations and guidance have been approved by OMB as listed in the following table:

21 CFR part or guidance	Topic	OMB control No.
807, subpart E	Premarket Notification	0910–0120
812	Investigational Device Exemption	0910–0078
''Requests for Feedback & Meetings for Medical Device Submissions: The Q-Submission Program''.	Q-submissions; Pre-submissions	0910–0756
800, 801, and 809	Medical Device Labeling Regulations	0910–0485

Dated: March 23, 2023.

Lauren K. Roth,

Associate Commissioner for Policy.

[FR Doc. 2023–06482 Filed 3–28–23; 8:45 am]

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2022–N–1959]

Joint Meeting of the Nonprescription Drugs Advisory Committee and the Obstetrics, Reproductive and Urologic Drugs 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 Nonprescription Drugs Advisory Committee and the Obstetrics, Reproductive and Urologic Drugs Advisory Committee. The general function of the committees is to provide advice and recommendations to FDA on regulatory issues. 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 May 9, 2023, from 9:30 a.m. to 5:30 p.m. Eastern Time and May 10, 2023, from 9:30 a.m. to 1:30 p.m. Eastern Time.

ADDRESSES: Please note that due to the impact of the COVID–19 pandemic, all meeting participants will be joining this advisory committee meeting via an online teleconferencing platform. Answers to commonly asked questions about FDA advisory committee meetings, including information regarding special accommodations due to a disability, may be accessed at: *https://www.fda.gov/AdvisoryCommittees/AboutAdvisoryCommittees/ucm408555.htm.*

FDA is establishing a docket for public comment on this meeting. The docket number is FDA–2022–N–1959. Please note that late, untimely filed comments will not be considered. The docket will close on May 8, 2023. The *https://www.regulations.gov* electronic filing system will accept comments until 11:59 p.m. Eastern Time at the end of May 8, 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 April 25, 2023, will be provided to the committees. Comments received after that date 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–2022–N–1959 for ''Joint Meeting of the Nonprescription Drugs Advisory Committee and the Obstetrics, Reproductive and Urologic Drugs Advisory Committee; 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: Moon Choi, Center for Drug Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 31, Rm. 2417, Silver Spring, MD 20993–0002, 301–796–2894, email: *NDAC@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. The committees will discuss supplemental new drug application (sNDA) 017031/S–041, for OPILL (norgestrel) Tablet, 0.075 mg, submitted by Laboratoire HRA Pharma. OPILL is proposed for nonprescription use as a once daily oral contraceptive to prevent pregnancy.

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 on FDA's website at the time of the advisory committee meeting. Background material and the link to the online teleconference meeting room will be 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 committees. All electronic and written submissions submitted to the Docket (see **ADDRESSES**) on or before April 25, 2023, will be provided to the committees. Oral presentations from the public will be scheduled between approximately 4 p.m. and 5:30 p.m. Eastern Time on May 9, 2023. 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, the names and addresses of proposed participants, and an indication of the approximate time requested to make their presentation on or before April 17, 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 April 18, 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 Moon Choi (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: March 24, 2023.

Lauren K. Roth,

Associate Commissioner for Policy.

[FR Doc. 2023–06524 Filed 3–28–23; 8:45 am]

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2023–N–0187]

Agency Information Collection Activities; Submission for Office of Management and Budget Review; Comment Request; Premarket Approval of Medical Devices

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing that a proposed collection of information has been submitted to the Office of Management and Budget (OMB) for review and clearance under the Paperwork Reduction Act of 1995.

DATES: Submit written comments (including recommendations) on the collection of information by April 28, 2023.

ADDRESSES: To ensure that comments on the information collection are received, OMB recommends that written comments be submitted to *https://www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under Review—Open for Public Comments'' or by using the search function. The OMB control number for this information collection is 0910–0231. Also include the FDA docket number found in brackets in the heading of this document.

FOR FURTHER INFORMATION CONTACT: Domini Bean, Office of Operations, Food and Drug Administration, Three White Flint North, 10A–12M, 11601 Landsdown St., North Bethesda, MD 20852, 301–796–5733, *PRAStaff@fda.hhs.gov.*

SUPPLEMENTARY INFORMATION: In compliance with 44 U.S.C. 3507, FDA has submitted the following proposed collection of information to OMB for review and clearance.

Premarket Approval of Medical Devices

OMB Control Number 0910–0231—Revision

This information collection supports implementation of statutory and regulatory requirements that govern premarket approval of medical devices. Premarket approval is the FDA process of scientific and regulatory review to evaluate the safety and effectiveness of class III medical devices. Class III devices are those that support or sustain human life, are of substantial importance in preventing impairment of human health, or which present a potential, unreasonable risk of illness or injury. Due to the level of risk associated with class III devices, FDA has determined that general and special controls alone are insufficient to assure the safety and effectiveness of class III devices. Therefore, these devices require a premarket approval application (PMA) under section 515 of the Federal Food, Drug, and Cosmetic Act (FD&C Act) (21 U.S.C. 360e) to obtain marketing approval. PMA requirements apply differently to preamendments devices, postamendments devices, and transitional class III devices and some class III preamendment devices may require a class III 510(k). (See the PMA Historical Background web page at *https://www.fda.gov/medical-devices/premarket-approval-pma/pma-historical-background* for additional information.) Section 515A of the FD&C Act (21 U.S.C. 360e–1) governs pediatric uses of devices.

The PMA is the most stringent type of device marketing application required by FDA. Applicants must receive FDA approval of a PMA prior to marketing the device. PMA approval is based on a determination that the PMA contains sufficient valid scientific evidence to assure that the device is safe and effective for its intended use(s). Respondents to the information

collection are PMA applicants, or persons who own the rights, or otherwise have authorized access, to the data and other information to be submitted in support of FDA approval. This person may be an individual, partnership, corporation, association, scientific or academic establishment, government agency or organizational unit, or other legal entity. The applicant is often the inventor/developer and ultimately the manufacturer. A class III device that fails to meet PMA requirements is considered to be adulterated under section 501(f) of the FD&C Act (21 U.S.C. 351(f)) and may not be marketed.

FDA regulations in part 814 (21 CFR part 814) implement section 515 and 515A of the FD&C Act and establish procedures for the premarket approval of medical devices intended for human use, including the submission of information concerning use in pediatric patients. Regulations in part 814, subpart A (21 CFR 814.1 to 814.19) set forth general provisions pertaining to the confidentiality of data and information submitted to FDA in a PMA, research conducted outside the United States, service of orders, and product development protocols (PDPs). Provisions in part 814, subparts B and C (21 CFR 814.20 to 814.47) establish format and content elements that must be included in an application, explain submission and review schedules, and address the withdrawal and temporary suspension of a PMA. Postapproval requirements, including reports required under 21 CFR part 803 (medical device reporting), are covered in regulations in part 814, subpart E (21 CFR 814.80 to 814.84). Burden attributable to information collection associated with regulations in part 814, subpart H (21 CFR 814.100 to 814.126) pertaining to Humanitarian Use Devices is currently approved in OMB control number 0910–0332.

For operational efficiency, we are revising the information collection to include burden that may be associated with recommendations found in the Agency guidance document entitled ''Providing Information about Pediatric Uses of Medical Devices'' (May 2014), currently approved in OMB control number 0910–0748. The guidance document describes how to compile and submit the readily available pediatric use information required under section 515A of the FD&C Act. The guidance document is available for download from our website at *https://www.fda.gov/regulatory-information/search-fda-guidance-documents/providing-information-about-pediatric-uses-medical-devices.*

Relatedly, we are revising the information collection to include burden that may be associated with the submission of information on pediatric use of medical devices under section 515A of the FD&C Act, also currently approved in OMB control number 0910–0748. Section 515A(a) of the FD&C Act requires applicants who submit information to include readily available information providing a description of any pediatric subpopulations that suffer from the disease or condition that the device is intended to treat, diagnose, or cure, and the number of affected pediatric patients. This information allows FDA to track the number of approved devices for which there is a pediatric subpopulation that suffers from the disease or condition that the device is intended to treat, diagnose, or cure and the review time for each such device application.

We are also revising the information collection to include burden applicable to implementing requirements under section 402(j)(5)(B) of the Public Health Service (PHS) Act (42 U.S.C. 282(j)(5)(b)), and set forth in regulations at 42 CFR part 11 (see 81 FR 64981, September 21, 2016). Specifically, applications under sections 505, 515, or 520(m) of the FD&C Act (21 U.S.C. 355, 360e, or 360j(m)), or under section 351 of the PHS Act (42 U.S.C. 262), or submission of a report under section 510(k) of the FD&C Act, must be accompanied by a certification. Where available, such certification must include the appropriate National Clinical Trial numbers. We have developed Form FDA 3674 (''Certifications to Accompany Drug, Biological Product, and Medical Device Applications/Submissions''), available at *https://www.fda.gov/regulatory-information/search-fda-guidance-documents/form-fda-3674-certifications-accompany-drug-biological-product-and-device-applicationssubmissions,* for respondents to submit the requisite information.

Respondents can make single submissions in an electronic format that includes eCopies, submissions submitted on CD, DVD, or flash drive and mailed to FDA and eSubmissions, submissions created using an electronic submission template (*e.g.,* ''electronic Submission Template and Resource'' (eSTAR)). Consistent with our authority in section 745A(b) of the FD&C Act (21 U.S.C. 379k–1(b)), and performance goals found in our current Medical Device User Fee Amendments Commitment Letter, we developed eSTAR for use through the Center for Devices and Radiological Health Customer Collaboration Portal. We use eSTAR as a tool to facilitate the preparation of submissions in electronic format (available on FDA's website at *https://www.fda.gov/medical-devices/how-study-and-market-your-device/voluntary-estar-program* and identified as Form FDA 4062 ''Electronic Submission Template and Resource (eSTAR)'' (for Non-In Vitro Diagnostic submissions) and Form FDA 4078 ''Electronic Submission Template and Resource (eSTAR)'' (for In Vitro Diagnostic submissions)). We believe respondents' use of eSTAR will significantly reduce burden attendant to application submissions by providing a uniform format for requisite elements and by enhancing user interface through the use of modernized technology.

Finally, we discuss the guidance document entitled ''Transition Plan for Medical Devices That Fall Within Enforcement Policies Issued During the Coronavirus Disease 2019 (COVID–19) Public Health Emergency,'' announced in the **Federal Register** of March 27, 2023. The guidance document describes a phased-in approach intended to help avoid disruption in device supply and help facilitate compliance with applicable legal requirements. The recommendations discussed in the guidance document result in the one-time collection of information intended to ensure an orderly and transparent transition from temporary policies established during the COVID–19 public health emergency to normal operations. Because the information collection recommendations apply to specific medical devices already in distribution, we believe the information discussed is appropriately characterized as nonstandardized followup designed to clarify responses to approved collections of information, *i.e.,* plans for continued compliance unique to that distributed device. We therefore believe the activity constitutes the collection of non-identical and/or followup information, as defined under 5 CFR 1320.3. At the same time, we expect some degree of fluctuation in future submissions under 21 CFR 814.20, as a result of implementation of the medical device transition plan.

In the **Federal Register** of January 30, 2023 (88 FR 5888), we published a 60-day notice requesting public comment on the proposed collection of information.

We estimate the information collection as follows:

TABLE 1—ESTIMATED ANNUAL REPORTING BURDEN [1]

Activity/21 CFR part/section or FD&C act section	Number of respondents	Number of responses per respondent	Total annual responses	Average burden per response	Total hours
Premarket Approval Submissions ("traditional" preparation; eCopy submission): 21 CFR Part 814, Premarket Approval of Medical Devices					
Subpart A—General:					
Research conducted outside the United States (814.15(b))	20	1	20	2	40
Subpart B—Premarket Approval Application (PMA):					
PMA application (814.20)	40	1	40	654.6	26,184
Information on clinical investigations conducted outside the United States (814.20(b)(6)(ii)(C)).	10	1	10	0.5 (30 minutes)	5
PMA amendments and resubmitted PMAs (814.37(a)–(c) and (e)).	1,356	1	1,356	167	226,452
PMA supplements (814.39(a))	762	1	762	0.5911 (35.5 minutes)	45,048
Special PMA supplement—changes being affected (814.39(d))	75	1	75	6	450
30-day notice (814.39(f))	1,181	1	1,181	16	18,896
Subtotal Parts A and B					317,075
Subpart C—FDA Action on a PMA:					
Panel of experts request (814.44 and 515(c)(3) of the FD&C Act).	1	1	1	30	30
Subpart E—Postapproval Requirements:					
Postapproval requirements (814.82(a)(9))	121	1	121	135	16,335
Periodic reports (814.84(b))	764	1	764	10	7,640
Total Subpart E					24,005
42 CFR part 11, Clinical Trials Registration and Results Information Submission, subparts D and E; and FDA Guidance "Form FDA 3674—Certifications To Accompany Drug, Biological Product, and Device Applications/Submissions"					
Certification to accompany PMA submissions (Form FDA 3674)	40	1	40	0.75 (45 minutes)	30
FD&C Act section 515A Pediatric Uses of Devices:					
Pediatric information in a PMA, PDP, or PMA supplement	944	1	944	2.10	1,984
Pediatric use information outside approved indication	800	1	800	0.5 (30 minutes)	400
Subtotal	1,744	1	1,744		2,384
Premarket Approval Submissions (eSTAR preparation; eCopy submission):					
eSTAR setup	30	1	30	0.08 (5 minutes)	2
Total					343,496

[1] There are no capital costs or operating and maintenance costs associated with this collection of information.

Our estimate is based on the annual rate of receipt of PMA submissions, including PDPs and PMA supplements, for fiscal years 2019 through 2021 and our expectation of submissions to come in the next few years. We also account for referrals of PMAs to a panel for review, as provided for under 21 CFR 814.44(a). FDA may refer the PMA to a panel on its own initiative, and will do so upon request of an applicant, unless FDA determines that the application substantially duplicates information previously reviewed by a panel. We have adjusted our figures to reflect an overall decrease, which we attribute to respondents' use of modernized submission technologies including eSTAR. At the same time, we include in our estimate an initial burden attributable to respondents who need to set up an eSTAR account for the first time.

Activity/21 CFR section	Number of recordkeepers	Number of records per recordkeeper	Total annual records	Average burden per recordkeeping	Total hours
Maintenance of records (814.82(a)(5) and (6))	552	1	552	17	9,384

[1] There are no capital costs or operating and maintenance costs associated with this collection of information.

The regulations require the maintenance of records, which are used to trace patients, and the organization and indexing of records into identifiable files to ensure a device's continued safety and effectiveness. These records are required of all applicants who have an approved PMA. Currently there are 815 active PMAs that could be subject to these requirements, based on FDA data, and approximately 33 new PMAs are approved each year. We estimate our annual recordkeeping burden based on an average of 552 PMA holders. The applicant determines which records should be maintained during product development to document and/or substantiate the device's safety and effectiveness. Records required under 21 CFR part 820 may be relevant to a PMA review and may be submitted as part of an application. In individual instances, records may be required as conditions of approval to ensure the device's continuing safety and effectiveness.

Dated: March 23, 2023.

Lauren K. Roth,

Associate Commissioner for Policy.

[FR Doc. 2023–06485 Filed 3–28–23; 8:45 am]

BILLING CODE 4164–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2023–N–0984]

Pulmonary-Allergy Drugs 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 Pulmonary-Allergy Drugs Advisory Committee. The general function of the committee is to provide advice and recommendations to FDA on regulatory issues. 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 May 11, 2023, from 9 a.m. to 5 p.m. Eastern Time.

ADDRESSES: Please note that due to the impact of the COVID–19 pandemic, all meeting participants will be joining this advisory committee meeting via an online teleconferencing platform. Answers to commonly asked questions about FDA advisory committee meetings may be accessed at: *https://www.fda.gov/AdvisoryCommittees/AboutAdvisoryCommittees/ucm408555.htm.*

FDA is establishing a docket for public comment on this meeting. The docket number is FDA–2023–N–0984. Please note that late, untimely filed comments will not be considered. The docket will close on May 10, 2023. The *https://www.regulations.gov* electronic filing system will accept comments until 11:59 p.m. Eastern Time at the end of May 10, 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 April 27, 2023, will be provided to the committee. Comments received after that date 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–0984 for ''Pulmonary-Allergy Drugs Advisory Committee; 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: Takyiah Stevenson, Center for Drug Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 31, Rm. 2417, Silver Spring, MD 20993–0002, 240–402–2507, email: *PADAC@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 the meeting.

SUPPLEMENTARY INFORMATION:

Agenda: The meeting presentations will be heard, viewed, captioned, and

recorded through an online teleconferencing platform. The committee will discuss new drug application (NDA) 214697, for epinephrine nasal spray, submitted by ARS Pharmaceuticals Inc., for the proposed indication of emergency treatment of allergic reactions (Type I) including anaphylaxis in adults and children ≥30 kilograms.

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 on FDA's website at the time of the advisory committee meeting. Background material and the link to the online teleconference meeting room will be 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 Docket (see **ADDRESSES**) on or before April 27, 2023, will be provided to the committee. Oral presentations from the public will be scheduled between approximately 1:30 p.m. and 2:30 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, the names and addresses of proposed participants, and an indication of the approximate time requested to make their presentation on or before April 19, 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 April 20, 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 Takyiah Stevenson (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: March 24, 2023.

Lauren K. Roth,

Associate Commissioner for Policy.

[FR Doc. 2023–06481 Filed 3–28–23; 8:45 am]

BILLING CODE 4164–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2013–N–0796]

Agency Information Collection Activities; Submission for Office of Management and Budget Review; Comment Request; Testing Communications by the Food and Drug Administration's Center for Devices and Radiological Health

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing that a proposed collection of information has been submitted to the Office of Management and Budget (OMB) for review and clearance under the Paperwork Reduction Act of 1995.

DATES: Submit written comments (including recommendations) on the collection of information by April 27, 2023.

ADDRESSES: To ensure that comments on the information collection are received, OMB recommends that written comments be submitted to *https://www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under Review—Open for Public Comments'' or by using the search function. The OMB control number for this information collection is 0910–0678. Also include the FDA docket number found in brackets in the heading of this document.

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: In compliance with 44 U.S.C. 3507, FDA has submitted the following proposed collection of information to OMB for review and clearance.

Testing Communications by FDA's Center for Devices and Radiological Health

OMB Control Number 0910–0678—Extension

FDA is authorized by section 1003(d)(2)(D) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 393(d)(2)(D)) to conduct educational and public information programs. FDA must conduct needed research to ensure that such programs have the highest likelihood of being effective. Improving communications by FDA's Center for Devices and Radiological Health (CDRH) involves many research methods, including individual indepth interviews, mall-intercept interviews, focus groups, self-administered surveys, gatekeeper reviews, and omnibus telephone surveys.

The information collected will serve three major purposes. First, as formative research it will provide critical knowledge needed about target audiences to develop messages and campaigns about product use. Knowledge of consumer, caregiver, and healthcare professional decision-making processes will provide a better understanding of target audiences that FDA needs to design effective communication strategies, messages, and labels.

Second, as initial testing, the collected information will allow FDA to assess the potential effectiveness of messages and materials in reaching and successfully communicating with intended audiences. Testing messages with a sample of the target audience will allow FDA to refine messages while still in the developmental stage. Respondents will be asked to give their reaction to the messages in either individual or group settings.

Third, as evaluative research, the collected information will allow FDA to ascertain the effectiveness of the messages and the distribution method in achieving the objectives of the message campaign. Evaluation of message campaigns is a vital link in continuous improvement of communications at FDA.

FDA expects to conduct studies under this generic information collection using

a variety of research methods. We estimate that the burden to respondents will average 16 minutes each (varying from 5 minutes to 90 minutes). FDA estimates the burden of this collection of information based on prior experience with the various types of data collection methods described earlier.

In the **Federal Register** of November 2, 2022 (87 FR 66192), FDA published a 60-day notice requesting public comment on the proposed collection of information. No comments were received.

FDA estimates the burden of this collection of information as follows:

TABLE 1—ESTIMATED ANNUAL REPORTING BURDEN [1] [2]

Type of respondent/survey	Number of respondents	Number of responses per respondent	Total annual responses	Average burden per response	Total hours
General Public					
Individual indepth interviews	420	1	420	0.75 (45 minutes)	315
General public focus group interviews	288	1	288	1.50 (1 hour, 30 minutes)	432
Intercept interviews: central location	200	1	200	0.25 (15 minutes)	50
Intercept interviews: telephone	4,000	1	4,000	0.08 (5 minutes)	320
Self-administered surveys	2,400	1	2,400	0.25 (15 minutes)	600
Gatekeeper reviews	400	1	400	0.50 (30 minutes)	200
Omnibus surveys	1,200	1	1,200	0.17 (10 minutes)	204
Total (general public)					2,121
Healthcare Professional					
Healthcare professional individual indepth interviews	72	1	72	0.75 (45 minutes)	54
Healthcare professional focus group interviews	144	1	144	1.50 (1 hour, 30 minutes)	216
Total (healthcare professional)					270
Total (overall)					2,391

[1] There are no capital costs or operating and maintenance costs associated with this collection of information.
[2] Numbers have been rounded.

Over the next 3-year approval period, we anticipate increasing our capability to conduct more communication surveys, which aligns with CDRH's strategic priorities. We have adjusted our burden estimates accordingly. Additionally, we have added an estimated hour burden for ''healthcare professional individual indepth interviews.'' These changes reflect an overall increase of 315 burden hours and a corresponding increase of 276 responses annually.

Dated: March 23, 2023.

Lauren K. Roth,

Associate Commissioner for Policy.

[FR Doc. 2023–06434 Filed 3–28–23; 8:45 am]

BILLING CODE 4164–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Health Resources and Services Administration

Meeting of the National Advisory Council on Migrant Health

AGENCY: Health Resources and Services Administration (HRSA), Department of Health and Human Services.

ACTION: Notice.

SUMMARY: In accordance with the Federal Advisory Committee Act, this notice announces that the National Advisory Council on Migrant Health (NACMH) scheduled a public meeting. Information about NACMH and the agenda for this meeting can be found on NACMH's website at *https://www.hrsa.gov/advisory-committees/migrant-health.*

DATES: May 24–25, 2023, 9:00 a.m.–5:00 p.m. Eastern Time.

ADDRESSES: This meeting will be held in-person at Hyatt Place Tampa Wesley Chapel, 26000 Sierra Center Boulevard, Lutz, Florida 33559 with an option to join virtually. For information about the meeting, visit NACMH's website 30 business days before the meeting date, where instructions to join the meeting will be posted.

FOR FURTHER INFORMATION CONTACT: Esther Paul, NACMH, Designated Federal Official, Strategic Initiatives Division, Office of Policy and Program Development, Bureau of Primary Health Care, HRSA, 5600 Fishers Lane, Rockville, MD 20857; 301–594–4300; or *epaul@hrsa.gov*.

SUPPLEMENTARY INFORMATION: NACMH provides advice and recommendations to the Secretary of Health and Human Services on policy, program development, and other matters of significance concerning the activities under section 217 of the Public Health Service Act, as amended (42 U.S.C. 218). Specifically, NACMH provides recommendations concerning the organization, operation, selection, and funding of migrant health centers, and other entities under grants and contracts under section 330 of the Public Health Service Act (42 U.S.C. 254b). NACMH meets twice each calendar year, or at the discretion of the Designated Federal Official in consultation with the NACMH Chair.

During the May 24–25, 2023, meeting, NACMH will discuss issues related to migratory and seasonal agricultural worker health. Agenda items are subject to change as priorities dictate. Refer to the NACMH website for any updated information concerning the meeting.

Members of the public will have the opportunity to provide comments. Public participants may submit written statements in advance of the scheduled meeting. Oral comments will be honored in the order they are requested and may be limited as time allows. Requests to submit a written statement or make oral comments to NACMH should be sent to Esther Paul, Designated Federal Official, using the contact information above at least 3 business days prior to the meeting.

Individuals who plan to attend and need special assistance or another reasonable accommodation should notify Esther Paul at the address and phone number listed above at least 10 business days prior to the meeting.

Maria G. Button,

Director, Executive Secretariat.

[FR Doc. 2023–06502 Filed 3–28–23; 8:45 am]

BILLING CODE 4165–15–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Health Resources and Services Administration

Recharter for the Advisory Committee on Training in Primary Care Medicine and Dentistry

AGENCY: Health Resources and Services Administration, Department of Health and Human Services (HHS).

ACTION: Notice.

SUMMARY: In accordance with the Federal Advisory Committee Act (FACA), HHS is hereby giving notice that the Advisory Committee on Training in Primary Care Medicine and Dentistry (ACTPCMD) has been rechartered. The effective date of the renewed charter is March 24, 2023.

FOR FURTHER INFORMATION CONTACT: Shane Rogers, Designated Federal Official, Division of Medicine and Dentistry, Bureau of Health Workforce, Health Resources and Services Administration, 5600 Fishers Lane, 15N152, Rockville, Maryland 20857; 301–443–5260; or email *BHWACTPCMD@hrsa.gov.*

SUPPLEMENTARY INFORMATION: ACTPCMD provides advice and recommendations to the Secretary of HHS on policy, program development, and other matters of significance concerning the activities under section 747 of Title VII of the Public Health Service (PHS) Act, as it existed upon the enactment of Section 749 of the PHS Act in 1998. ACTPCMD prepares an annual report describing the activities of the Committee, including findings and recommendations made by the Committee concerning the activities under section 747, as well as training programs in oral health and dentistry. The annual report is submitted to the Secretary of HHS and the Chair and ranking members of the Senate Committee on Health, Education, Labor and Pensions, and the House of Representatives Committee on Energy and Commerce. The Committee also develops, publishes, and implements performance measures and guidelines for longitudinal evaluations of programs authorized under Title VII, Part C, of the PHS Act, and recommends appropriation levels for programs under this Part. Meetings are held at least twice a year.

The renewed charter for the ACTPCMD was approved on March 23, 2023. The filing date is March 24, 2023. Recharter of the ACTPCMD gives authorization for the ACTPCMD to operate until March 24, 2025.

A copy of the ACTPCMD charter is available on the ACTPCMD website at: *https://www.hrsa.gov/advisory-committees/primarycare-dentist/about.html.* A copy of the charter can also be obtained by accessing the FACA database that is maintained by the Committee Management Secretariat under the General Services Administration. The website for the FACA database is *http://www.facadatabase.gov/.*

Maria G. Button,

Director, Executive Secretariat.

[FR Doc. 2023–06447 Filed 3–28–23; 8:45 am]

BILLING CODE 4165–15–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Recharter for the Advisory Committee on Interdisciplinary, Community-Based Linkages

AGENCY: Health Resources and Services Administration (HRSA), Department of Health and Human Services.

ACTION: Notice.

SUMMARY: In accordance with the Federal Advisory Committee Act (FACA), the Department of Health and Human Services is hereby giving notice that the Advisory Committee on Interdisciplinary, Community-Based Linkages (ACICBL or Advisory Committee) has been rechartered. The effective date of the renewed charter is March 24, 2023.

FOR FURTHER INFORMATION CONTACT: Shane Rogers, Designated Federal Official, Bureau of Health Workforce, HRSA, 5600 Fishers Lane, 15N142, Rockville, Maryland 20857; 301–443–5260; or *BHWACICBL@hrsa.gov.*

SUPPLEMENTARY INFORMATION: The Advisory Committee provides advice and recommendations on policy and program development to the Secretary of Health and Human Services (Secretary) concerning the activities authorized under Title VII, Part D of the Public Health Service Act, and is responsible for submitting an annual report to the Secretary and Congress describing the activities of the Advisory Committee, including findings and recommendations concerning the activities under Part D of Title VII. In addition, ACICBL develops, publishes, and implements performance measures and guidelines for longitudinal evaluations, as well as recommends appropriation levels for programs under Part D of Title VII. The renewed charter for ACICBL was approved on March 23, 2023. The filing date is March 24, 2023. Recharter of the ACICBL gives authorization for the Advisory Committee to operate until March 24, 2025.

A copy of the charter is available on the ACICBL website at *https://www.hrsa.gov/advisory-committees/interdisciplinary-community-linkages/index.html.* A copy of the charter also can be obtained by accessing the FACA database that is maintained by the Committee Management Secretariat under the General Services Administration. The website address for the FACA database is *http://www.facadatabase.gov/.*

Maria G. Button,

Director, Executive Secretariat.

[FR Doc. 2023–06444 Filed 3–28–23; 8:45 am]

BILLING CODE 4165–15–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Indian Health Service

Addressing Dementia in Indian Country: Models of Care

Announcement Type: New.

Funding Announcement Number: HHS–2023–IHS–ALZ–0001.

Assistance Listing (Catalog of Federal Domestic Assistance or CFDA) Number: 93.933.

Key Dates

Application Deadline Date: June 27, 2023.

Earliest Anticipated Start Date: August 11, 2023.

I. Funding Opportunity Description

Statutory Authority

The Indian Health Service (IHS) is accepting applications for cooperative agreements for Addressing Dementia in Indian Country. This program is authorized under the Snyder Act, 25 U.S.C. 13; the Transfer Act, 42 U.S.C. 2001(a); and the Indian Health Care Improvement Act, 25 U.S.C. 1665a(c)(5)(F) and 1660e. This program is described in the Assistance Listings located at *https://sam.gov/content/home* (formerly known as the CFDA) under 93.933.

Background

Alzheimer's disease and Alzheimer's disease-related dementias affect lives in every Tribal and Urban Indian community. Alzheimer's disease is the most common cause of dementia—a progressive cognitive impairment that adversely affects function. Other forms of dementia include vascular dementia, Lewy-Body Disease, Fronto-Temporal

Dementia, alcohol-related dementia, dementia related to traumatic brain injury, and mixed dementia (attributable to more than one cause of cognitive impairment). Age is the most significant risk factor for Alzheimer's disease. Although the average age of the American Indian and Alaska Native (AI/AN) population is younger than the United States (U.S.) average population as a whole, the AI/AN group ages 65 and older is growing more rapidly than the U.S. population. The Centers for Disease Control and Prevention (CDC) notes that the number of AI/AN aged 65 and older is expected to triple in the next 30 years, with the oldest—those 85 years and older—increasing even more rapidly. While age is the most substantial risk factor for Alzheimer's disease, early-onset occurs in younger populations and in persons with Down Syndrome or Trisomy 21, who are at markedly increased risk for Alzheimer's Disease. Conditions such as diabetes, cardiovascular disease, chronic kidney disease, chronic liver disease, and traumatic brain injury increase the risk of dementia and can lead to a more rapid worsening.

Dementia of all types is under-recognized, underdiagnosed, and undertreated in all populations in the U.S., and anecdotal evidence suggests this is very much true for the AI/AN population. Many individuals go unrecognized in the community, never seeking care and living with impaired cognition that puts them at risk for financial exploitation, poor health outcomes, and accidental injury. Individuals and their families may not recognize the cognitive changes that dementia brings. They may think the changes are due to normal aging or may accept the changes and not seek care out of concern for the elder's dignity. Failure to recognize dementia may also stem from the stigma associated with dementia and from a lack of awareness of the resources available. Often it takes a crisis or illness to bring attention to the condition. Diagnosis of dementia is most often made in the primary care office or clinic, with specialty referral needed when the presentation is not typical or apparent. But primary care providers may lack the confidence or knowledge to make the diagnosis or plan effective care. They also may not have access to an interdisciplinary team to support care or specialists through consultation or referral to support diagnosis and management decisions. Effective management of dementia crosses many boundaries, involving medical care, personal care, social services, legal and financial services, and housing. Management of dementia requires coordination between clinical services and community-based services. Those living with dementia and their caregivers are too often left to coordinate this complex care themselves. Most persons living with dementia receive some care and assistance from caregivers and sometimes from family members. Care for the person living with dementia should include consideration for their caregivers; unfortunately, this is not common.

Effective models for addressing dementia in Tribal and Urban Indian communities will be supported by evidence and will emerge through development or adaptation and evaluation from those communities. A recent report by the Agency for Healthcare Research and Quality and the National Academies of Science, Engineering, and Medicine points to the Resources for Enhancing Alzheimer's Caregiver Health II (REACH II) caregiver support intervention and models of coordinated care as interventions that have evidence for benefit and are ready for implementation and further evaluation.[1] The REACH into Indian Country initiative successfully trained public and community health nurses to provide the REACH intervention in Tribal communities. Communities across the country, including some Tribal communities, use the Dementia-Friendly Communities approach to building community-based efforts to improve care for persons living with dementia and their families.[2] A large number of evidence-based programs have been cataloged online.[3] The Alzheimer's and Dementia Care Program is one example of an evidence-based program that works with primary care providers to provide comprehensive and coordinated care to persons living with dementia and their caregivers.[4] The Healthy Brain Initiative Roadmap for Indian Country, developed by the CDC and the Alzheimer's Association, is designed to support discussion about dementia and caregiving with Tribal communities and encourage a public health approach as part of a larger holistic response.[5] These and other models and resources can help inform the design of Tribal and Urban Indian health models.

Purpose

The purpose of this program is to support the development of models of comprehensive and sustainable dementia care and services in Tribal and Urban Indian communities that are responsive to the needs of persons living with dementia and their caregivers. Awardees will:

1. Plan and implement a comprehensive approach to care and services for persons living with dementia and their caregivers that addresses:

a. Awareness and Recognition. Enhance awareness and early recognition of dementia in the community and increase referral to clinical care for evaluation leading to diagnosis. The U.S. Preventive Services Task Force has concluded that ''current evidence is insufficient to assess the benefits and harms of screening for cognitive impairment in older adults.'' Still, there is broad consensus supporting case finding to promote early recognition and diagnosis of dementia.

b. Accurate and Timely Diagnosis. Individuals and their families should have confidence that concerns about potential cognitive impairment will be evaluated thoroughly and lead to an accurate and timely diagnosis. Most diagnoses of dementia can be made in primary care, but clinical programs should have referral and consultation mechanisms in place (either in person or via telehealth) to support diagnosis when needed.

c. Interdisciplinary Assessment. Persons living with dementia will have complex and evolving care needs. An interdisciplinary assessment helps identify goals of care and gaps in services and sets the stage for appropriate care and services. In best practice, this assessment includes an attempt to understand the cultural, religious, and personal values that will guide goals and preferences for care. It assesses family and other caregiving resources, the needs and capabilities of those partners in care, and housing security and safety risks.

d. Management and Referral. Care for the person living with dementia is guided by the assessment and most often requires coordination of health care and social services to meet their

[1] National Academies of Sciences, Engineering, and Medicine. 2021. Meeting the challenge of caring for persons living with dementia and their care partners and caregivers: A way forward. Washington, DC: The National Academies Press. *https://doi.org/10.17226/26026.*

[2] Dementia Friendly America *https://www.dfamerica.org https://iasquared.org/news-release-ia2-is-now-a-national-dementia-friends-sub-licensee-for-american-indian-and-alaska-native-tribal-communities/.*

[3] Best Practice Caregiving online database. *https://bpc.caregiver.org/#searchPrograms.*

[4] The Alzheimer's and Dementia Care Program. *https://www.adcprogram.org/.*

[5] Centers for Disease Control and Prevention. Road Map for Indian Country. *https://www.cdc.gov/aging/healthybrain/indian-country-roadmap.html.*

needs and support caregivers. Those living with dementia and their caregivers often need support and assistance navigating the various systems providing this care.

e. Support for Caregivers. Care for persons living with dementia includes care for their caregivers. Families and other caregivers need help navigating services and mobilizing respite care, help in understanding what to expect and how to respond to the challenges of living with dementia, and support for self-care. Interventions that provide that care and support (*e.g.,* REACH) and provide education and training (*e.g.,* Savvy Caregiver) have been adapted for use in Tribal communities.

2. Develop, in collaboration with the IHS Alzheimer's Grant Program, best and promising practices to include tools, resources, reports, and presentations accessible to Federal, Tribal, and Urban Indian health programs as they plan and implement their own programs.

3. Identify and implement reimbursement and funding streams that will support service delivery and facilitate sustainability. Opportunities for reimbursement and funding streams are dependent on the specific interventions planned, but potential sources might include:

a. Medicare reimbursement through the Physician Fee Schedule, including Cognitive Assessment and Planning codes and Chronic and Complex Care Management codes.

b. Medicaid and other state programs.

c. Purchased and Referred Care resources.

d. IHS and Third Party Revenue.

The IHS Alzheimer's Grant Program in the IHS Division of Clinical and Community Services (DCCS) will provide technical assistance to grantees in the development of a plan for sustainability.

Required, Optional, and Allowable Activities

Awardees must plan to participate in regular (not more than monthly) web-based opportunities to share their experience and expertise with other awardees and to participate in at least one annual, one to two day in-person meeting in a location to be determined. In addition, optional training and technical assistance opportunities will be provided.

II. Award Information

Funding Instrument—Cooperative Agreement

Estimated Funds Available

The total funding identified for fiscal year (FY) 2023 is approximately $1.2 million. Individual award amounts for the first budget year are anticipated to be between $100,000 and $200,000. The funding available for competing and subsequent continuation awards issued under this announcement is subject to the availability of appropriations and budgetary priorities of the Agency. The IHS is under no obligation to make awards that are selected for funding under this announcement.

Anticipated Number of Awards

Approximately six awards will be issued under this program announcement.

Period of Performance

The period of performance is for 2 years.

Cooperative Agreement

Cooperative agreements awarded by the Department of Health and Human Services (HHS) are administered under the same policies as grants. However, the funding agency, IHS, is anticipated to have substantial programmatic involvement in the project during the entire period of performance. Below is a detailed description of the level of involvement required of the IHS.

Substantial Agency Involvement Description for Cooperative Agreement

1. The IHS DCCS Alzheimer's Grant Program, will collaborate with recipients throughout the process of project planning and implementation and assist in the identification of tools, resources, reports, and presentations for dissemination to other Tribal, IHS, and Urban Indian health programs. The IHS will also provide technical assistance in evaluation plan implementation and developing a sustainability plan, as needed.

2. The IHS will convene recipients periodically, not more often than monthly, to share ideas, strategies, and tools to accelerate design and implementation progress.

3. The IHS will link recipients with Federal agencies and non-governmental organizations working to improve the care of persons living with dementia and their caregivers.

4. The IHS will coordinate reporting (*e.g.,* identified metrics utilized, achieved goals, identified best practices, etc.) and technical assistance (*e.g.,* programmatic support to Tribal communities) as required.

III. Eligibility Information

1. Eligibility

To be eligible for this funding opportunity, an applicant cannot be an existing awardee under the Addressing Dementia in Indian Country program. Also, under this announcement, an applicant must be one of the following as defined under 25 U.S.C. 1603:

- A federally recognized Indian Tribe as defined by 25 U.S.C. 1603(14). The term ''Indian Tribe'' means any Indian Tribe, band, nation, or other organized group or community, including any Alaska Native village or group, or regional or village corporation, as defined in or established pursuant to the Alaska Native Claims Settlement Act (85 Stat. 688) [43 U.S.C. 1601 *et seq.*], which is recognized as eligible for the special programs and services provided by the U.S. to Indians because of their status as Indians.
- A Tribal organization as defined by 25 U.S.C. 1603(26). The term ''Tribal organization'' has the meaning given the term in Section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5304(l)): ''Tribal organization'' means the recognized governing body of any Indian Tribe; any legally established organization of Indians which is controlled, sanctioned, or chartered by such governing body or which is democratically elected by the adult members of the Indian community to be served by such organization and which includes the maximum participation of Indians in all phases of its activities: provided that, in any case where a contract is let or grant made to an organization to perform services benefiting more than one Indian Tribe, the approval of each such Indian Tribe shall be a prerequisite to the letting or making of such contract or grant. Applicant shall submit letters of support and/or Tribal Resolutions from the Tribes to be served.
- An Urban Indian organization, as defined by 25 U.S.C. 1603(29). The term ''Urban Indian organization'' means a nonprofit corporate body situated in an urban center, governed by an Urban Indian controlled board of directors, and providing for the maximum participation of all interested Indian groups and individuals, which body is capable of legally cooperating with other public and private entities for the purpose of performing the activities described in 25 U.S.C. 1653(a). Applicants must provide proof of

nonprofit status with the application, *e.g.,* 501(c)(3).

The Division of Grants Management (DGM) will notify any applicants deemed ineligible.

Note: Please refer to Section IV.2 (Application and Submission Information/ Subsection 2, Content and Form of Application Submission) for additional proof of applicant status documents required, such as Tribal Resolutions, proof of nonprofit status, etc.

2. Cost Sharing or Matching

The IHS does not require matching funds or cost sharing for grants or cooperative agreements.

3. Other Requirements

Applications with budget requests that exceed the highest dollar amount outlined under Section II Award Information, Estimated Funds Available, or exceed the period of performance outlined under Section II Award Information, Period of Performance, are considered not responsive and will not be reviewed. The DGM will notify the applicant.

Additional Required Documentation

Tribal Resolution

The DGM must receive an official, signed Tribal Resolution prior to issuing a Notice of Award (NoA) to any Tribe or Tribal organization selected for funding. An applicant that is proposing a project affecting another Indian Tribe must include Tribal Resolutions from all affected Tribes to be served. However, if an official signed Tribal Resolution cannot be submitted with the application prior to the application deadline date, a draft Tribal Resolution must be submitted with the application by the deadline date in order for the application to be considered complete and eligible for review. The draft Tribal Resolution is not in lieu of the required signed resolution but is acceptable until a signed resolution is received. If an application without a signed Tribal Resolution is selected for funding, the applicant will be contacted by the Grants Management Specialist (GMS) listed in this funding announcement and given 90 days to submit an official signed Tribal Resolution to the GMS. If the signed Tribal Resolution is not received within 90 days, the award will be forfeited.

Applicants organized with a governing structure other than a Tribal council may submit an equivalent document commensurate with their governing organization.

Proof of Nonprofit Status

Organizations claiming nonprofit status must submit a current copy of the 501(c)(3) Certificate with the application.

IV. Application and Submission Information

Grants.gov uses a Workspace model for accepting applications. The Workspace consists of several online forms and three forms in which to upload documents—Project Narrative, Budget Narrative, and Other Documents. Give your files brief descriptive names. The filenames are key in finding specific documents during the objective review and in processing awards. Upload all requested and optional documents individually, rather than combining them into a single file. Creating a single file creates confusion when trying to find specific documents. Such confusion can contribute to delays in processing awards and could lead to lower scores during the objective review.

1. Obtaining Application Materials

The application package and detailed instructions for this announcement are available at *https://www.Grants.gov.*

Please direct questions regarding the application process to *DGM@ihs.gov.*

2. Content and Form Application Submission

Mandatory documents for all applicants include:

- Application forms:

1. SF–424, Application for Federal Assistance.
2. SF–424A, Budget Information—Non-Construction Programs.
3. SF–424B, Assurances—Non-Construction Programs.
4. Project Abstract Summary form (one page).

- Project Narrative (not to exceed 10 pages). See Section IV.2.A, Project Narrative for instructions.
- Budget Narrative (not to exceed five pages). See Section IV.2.B, Budget Narrative for instructions.
- Work plan chart.
- Tribal Resolution(s) as described in Section III, Eligibility, if applicable.
- Letters of Support from organization's Board of Directors (optional).
- 501(c)(3) Certificate, if applicable.
- Biographical sketches for all Key Personnel.
- Contractor/Consultant resumes or qualifications and scope of work.
- Disclosure of Lobbying Activities (SF–LLL), if applicant conducts reportable lobbying.
- Certification Regarding Lobbying (GG-Lobbying Form).
- Copy of current Negotiated Indirect Cost (IDC) rate agreement (required in order to receive IDC).
- Organizational Chart.
- Documentation of current Office of Management and Budget (OMB) Financial Audit (if applicable).

Acceptable forms of documentation include:

1. Email confirmation from Federal Audit Clearinghouse (FAC) that audits were submitted; or
2. Face sheets from audit reports. Applicants can find these on the FAC website at *https://facdissem.census.gov/.*

Public Policy Requirements

All Federal public policies apply to IHS grants and cooperative agreements. Pursuant to 45 CFR 80.3(d), an individual shall not be deemed subjected to discrimination by reason of their exclusion from benefits limited by Federal law to individuals eligible for benefits and services from the IHS. See *https://www.hhs.gov/grants/grants/grants-policies-regulations/index.html.*

Requirements for Project and Budget Narratives

A. Project Narrative

This narrative should be a separate document that is no more than 10 pages and must: (1) have consecutively numbered pages; (2) use black font 12 points or larger (applicants may use 10 point font for tables); (3) be single-spaced; and (4) be formatted to fit standard letter paper (8–1/2 x 11 inches). Do not combine this document with any others.

Be sure to succinctly answer all questions listed under the evaluation criteria (refer to Section V.1, Evaluation Criteria) and place all responses and required information in the correct section noted below or they will not be considered or scored. If the narrative exceeds the overall page limit, the reviewers will be directed to ignore any content beyond the page limit. The 10-page limit for the project narrative does not include the accompanying work plan, standard forms, Tribal Resolutions, budget, budget narratives, and/or other items. Page limits for each section within the project narrative are guidelines, not hard limits.

There are three parts to the project narrative: Part 1—Program Information; Part 2—Program Planning and Evaluation; and Part 3—Program Report. See below for additional details about what must be included in the narrative.

The page limits below are for each narrative and budget submitted.

Part 1: Program Information (Limit—4 Pages)

Section 1: Tribal or Organizational Overview

Provide a brief description of the Tribe, Tribal organization, or Urban Indian health program, health care delivery system and resources, elderly services and resources, long-term services and supports, and other Tribal or community-based services that might be involved.

Section 2: Needs

Provide any data available about the number of persons living with dementia, their needs, and the needs of their caregivers. If data is not currently available, indicate this here and in Part 2 below, and describe in detail how the applicant will obtain or develop this data in the first year of the program.

Section 3: Other Funded Initiatives

Provide information about other funded initiatives addressing dementia that the applicant is or will be participating in that are relevant to this proposal. Indicate any HHS grants addressing dementia (*e.g.,* Dementia Capability in Indian Country Grant program of the Administration for Community Living) the applicant has been awarded whose period of performance may overlap the period of performance of this grant opportunity.

Part 2: Program Planning and Evaluation (Limit—4 Pages)

Section 1: Program Plans

Describe fully and clearly the applicant's plan to implement a comprehensive approach to care and services for persons living with dementia and their caregivers and identify funding streams that will support service delivery. State the purpose, goals, and objectives of your proposed project. The plan should include a vision for a comprehensive approach to care, recognizing that achieving the fully implemented approach may not be feasible within the period of performance.

Section 2: Program Evaluation

Describe fully and clearly the methods, data sources, and measures that will be used to monitor the progress of the proposed activities and determine effectiveness in implementing the plan and progress towards achieving goals as described in Section 1. The evaluation plan should include the specific measures, *e.g.,* outputs and outcomes that will be used to assess achievement. The evaluation plan should, at a minimum, include performance measures about the number of persons newly diagnosed with dementia, the number of persons living with a pre-existing dementia diagnosis, screening measures, and case finding efforts among their patient population. If the applicant intends to obtain or develop data about the needs of persons living with dementia and the needs of their caregivers as an element of this award, the applicant should indicate those data elements and describe how that data will be developed or acquired in the first year.

Part 3: Program Report (Limit—2 Pages)

Section 1

Identify and describe your organization's significant program activities and accomplishments within the past five years associated with developing and implementing clinical or community care and support services for people living with dementia and their caregivers, if any. Provide a comparison of actual accomplishments to the established goals, where relevant. If applicable, provide justification for the lack of or limited progress.

Section 2: Sharing With Other Tribes, Tribal Organizations, and Urban Indian Organizations

Describe how your program will develop and share, in collaboration with the IHS, best and promising practices that include tools, resources, reports, and presentations accessible to stakeholders across the Tribal health system including Tribal and Urban Indian health partners.

B. Budget Narrative (Limit—5 Pages)

Provide a budget narrative table that explains the amounts requested for each line item of the budget from the SF–424A (Budget Information for Non-Construction Programs) for the first year of the project. The applicant can submit with the budget narrative a more detailed spreadsheet than is provided by the SF–424A (the spreadsheet will not be considered part of the budget narrative). The budget narrative should specifically describe how each item would support the achievement of proposed objectives. Be very careful about showing how each item in the ''Other'' category is justified. Do NOT use the budget narrative to expand the project narrative.

3. Submission Dates and Times

Applications must be submitted through *Grants.gov* by 11:59 p.m. Eastern Time on the Application Deadline Date. Any application received after the application deadline will not be accepted for review. *Grants.gov* will notify the applicant via email if the application is rejected.

If technical challenges arise and assistance is required with the application process, contact *Grants.gov* Customer Support (see contact information at *https://www.Grants.gov*). If problems persist, contact Mr. Paul Gettys (*DGM@ihs.gov*), Deputy Director, DGM, by telephone at (301) 443–2114. Please be sure to contact Mr. Gettys at least 10 days prior to the application deadline. Please do not contact the DGM until you have received a *Grants.gov* tracking number. In the event you are not able to obtain a tracking number, call the DGM as soon as possible.

The IHS will not acknowledge receipt of applications.

4. Intergovernmental Review

Executive Order 12372 requiring intergovernmental review is not applicable to this program.

5. Funding Restrictions

- Pre-award costs are allowable up to 90 days before the start date of the award provided the costs are otherwise allowable if awarded. Pre-award costs are incurred at the risk of the applicant.
- The available funds are inclusive of direct and indirect costs.
- Only one cooperative agreement may be awarded per applicant.

6. Electronic Submission Requirements

All applications must be submitted via *Grants.gov*. Please use the *https://www.Grants.gov* website to submit an application. Find the application by selecting the ''Search Grants'' link on the homepage. Follow the instructions for submitting an application under the Package tab. No other method of application submission is acceptable.

If you cannot submit an application through *Grants.gov*, you must request a waiver prior to the application due date. You must submit your waiver request by email to *DGM@ihs.gov.* Your waiver request must include clear justification for the need to deviate from the required application submission process. The IHS will not accept any applications submitted through any means outside of *Grants.gov* without an approved waiver.

If the DGM approves your waiver request, you will receive a confirmation of approval email containing submission instructions. You must include a copy of the written approval with the application submitted to the DGM. Applications that do not include a copy of the signed waiver from the Deputy Director of the DGM will not be reviewed. The Grants Management Officer of the DGM will notify the applicant via email of this decision.

Applications submitted under waiver must be received by the DGM no later than 5:00 p.m. Eastern Time on the Application Deadline Date. Late applications will not be accepted for processing. Applicants that do not register for both the System for Award Management (SAM) and *Grants.gov* and/or fail to request timely assistance with technical issues will not be considered for a waiver to submit an application via alternative method.

Please be aware of the following:

- Please search for the application package in *https://www.Grants.gov* by entering the Assistance Listing (CFDA) number or the Funding Opportunity Number. Both numbers are located in the header of this announcement.
- If you experience technical challenges while submitting your application, please contact *Grants.gov* Customer Support (see contact information at *https://www.Grants.gov*).
- Upon contacting *Grants.gov*, obtain a tracking number as proof of contact. The tracking number is helpful if there are technical issues that cannot be resolved and a waiver from the agency must be obtained.
- Applicants are strongly encouraged not to wait until the deadline date to begin the application process through *Grants.gov* as the registration process for SAM and *Grants.gov* could take up to 20 working days.
- Please follow the instructions on *Grants.gov* to include additional documentation that may be requested by this funding announcement.
- Applicants must comply with any page limits described in this funding announcement.
- After submitting the application, you will receive an automatic acknowledgment from *Grants.gov* that contains a *Grants.gov* tracking number. The IHS will not notify you that the application has been received.

System for Award Management

Organizations that are not registered with SAM must access the SAM online registration through the SAM home page at *https://sam.gov*. Organizations based in the U.S. will also need to provide an Employer Identification Number from the Internal Revenue Service that may take an additional two to five weeks to become active. Please see *SAM.gov* for details on the registration process and timeline. Registration with the SAM is free of charge but can take several weeks to process. Applicants may register online at *https://sam.gov*.

Unique Entity Identifier

Your *SAM.gov* registration now includes a Unique Entity Identifier (UEI), generated by *SAM.gov*, which replaces the DUNS number obtained from Dun and Bradstreet. *SAM.gov* registration no longer requires a DUNS number.

Check your organization's *SAM.gov* registration as soon as you decide to apply for this program. If your *SAM.gov* registration is expired, you will not be able to submit an application. It can take several weeks to renew it or resolve any issues with your registration, so do not wait.

Check your *Grants.gov* registration. Registration and role assignments in *Grants.gov* are self-serve functions. One user for your organization will have the authority to approve role assignments, and these must be approved for active users in order to ensure someone in your organization has the necessary access to submit an application.

The Federal Funding Accountability and Transparency Act of 2006, as amended (''Transparency Act''), requires all HHS awardees to report information on sub-awards. Accordingly, all IHS awardees must notify potential first-tier sub-awardees that no entity may receive a first-tier sub-award unless the entity has provided its UEI number to the prime awardee organization. This requirement ensures the use of a universal identifier to enhance the quality of information available to the public pursuant to the Transparency Act.

Additional information on implementing the Transparency Act, including the specific requirements for SAM, are available on the DGM Grants Management, Policy Topics web page at *https://www.ihs.gov/dgm/policytopics/*.

V. Application Review Information

Possible points assigned to each section are noted in parentheses. The project narrative and budget narrative should include only the first year of activities. The project narrative should be written in a manner that is clear to outside reviewers unfamiliar with prior related activities of the applicant. It should be well organized, succinct, and contain all information necessary for reviewers to fully understand the project. Attachments requested in the criteria do not count toward the page limit for the narratives. Points will be assigned to each evaluation criteria adding up to a total of 100 possible points. Points are assigned as follows:

1. Evaluation Criteria

A. Introduction and Need for Assistance (10 Points)

1. Description of the clinical services, elder services and resources, long-term care services, and supports available through the applicant's organization, either as a direct service or through agreement, contract, or Purchased and Referred Care (PRC). Applicants must be able to provide ambulatory care services directly or through coordination with IHS Direct Services and must be able to coordinate with elder services.

2. Description of the number of individuals living with dementia to be served, any data available about the prevalence of risk factors for dementia (including age as reflected in the population's demographics), and any limitations of the data available.

3. Identification of the most urgent and pressing gaps in availability or quality of care and services for persons living with dementia and their families. If this information is not available, the acquisition of this information should be a detailed part of the Project Objective(s), Work Plan, and Approach.

4. If the applicant is the recipient of other HHS grants that will provide funding to address dementia over the same time period (*e.g.,* Dementia Capability in Indian Country Grant program of the Administration for Community Living), address how funding under this opportunity will address the need without overlapping the activities of other funded awards, if applicable.

B. Project Objective(s), Work Plan, and Approach (30 Points)

1. The overall vision for a comprehensive approach to care and services for persons living with dementia and their caregivers, including:

- Awareness and recognition.
- Timely and accurate diagnosis.
- Multidisciplinary assessment.
- Management and referral.
- Caregiver Support.

2. The elements of this vision that the awardee anticipates implementing, including planning activities and assessment of need, if not already available.

3. Describe the approach to accomplishing the work plan, including planning activities and assessment of need, if not already available. This work plan should be responsive to the most urgent and pressing gaps in availability and quality of care and services for persons living with dementia and their families. This work plan must include, at minimum, both the provision of clinical services, either directly or through coordination with IHS Direct Services, and the engagement of elder services.

4. The accompanying work plan and approach should include developing

tools, resources, reports, and presentations to support the development of programs by other Tribes, Tribal organizations, or Urban Indian health programs.

5. If the applicant is the recipient of other HHS grants that will provide funding to address dementia over the same time period (*e.g.* Dementia Capability in Indian Country Grant program of the Administration for Community Living), indicate how the work plan and approach supported through this funding will complement and not supplant or overlap that already-funded work.

C. Program Evaluation (30 Points)

1. Clearly identify a goal or goals and plans for program evaluation to ensure that the objectives of the program are met at the conclusion of the period of performance.

2. Include SMART (Specific, Measurable, Achievable, Relevant and Time-based) objectives to establish a specific set of evaluation criteria to ensure the goals are attainable within the period of performance.

3. Evaluation should include metrics that provide insight into the implementation of those elements of a comprehensive approach to care and services for persons living with dementia and their families that the applicant has proposed to implement. The evaluation plan should include metrics about the number of persons newly diagnosed, persons living with a pre-existing dementia diagnosis, screening measures, and case finding efforts among their patient population. The evaluation should also include metrics for important outcomes of care for persons living with dementia and their family or caregiver(s), such as avoidance of crisis-driven care (*e.g.,* emergent transfers and undesired out-of-home placement) and processes of care that contribute to better outcomes (*e.g.,* reduction of medications that impair cognition). If the applicant intends to obtain or develop new data collection methods or metrics as an element of this award, the applicant should describe how that data will be developed or acquired in the first year. Please refer to the draft logic model example in the appendix as a guide.

D. Organizational Capabilities, Key Personnel, and Qualifications (20 Points)

1. Include an organizational capacity statement that demonstrates the ability to execute program strategies within the period of performance.

2. Project management and staffing plan. Detail that the organization has the current staffing and expertise to address each of the program activities. If capacity does not exist, please describe the applicant's actions to fill this gap within a specified timeline.

3. Identify any partnerships or collaborations that will be needed to implement the work plan and include letters of support or intent to coordinate or collaborate with those partners.

4. Demonstrate that the applicant has previous successful experience providing technical or programmatic support to Tribal communities.

E. Categorical Budget and Budget Justification (10 Points)

Provide a detailed budget and accompanying narrative to explain the activities being considered and how they are related to proposed program objectives.

Additional documents can be uploaded as Other Attachments in *Grants.gov.* These can include:

- Logic model and/or timeline for proposed objectives.
- Position descriptions for key staff.
- Resumes of key staff that reflect current duties.
- Consultant or contractor proposed scope of work and letter of commitment (if applicable).
- Current Indirect Cost Rate Agreement.
- Organizational chart.
- Map of area identifying project location(s).
- Additional documents to support narrative (*i.e.,* data tables, key news articles, etc.).

2. Review and Selection

Each application will be prescreened for eligibility and completeness as outlined in the funding announcement. Applications that meet the eligibility criteria shall be reviewed for merit by the Objective Review Committee (ORC) based on the evaluation criteria. Incomplete applications and applications that are not responsive to the administrative thresholds (budget limit, period of performance limit) will not be referred to the ORC and will not be funded. The DGM will notify the applicant of this determination.

Applicants must address all program requirements and provide all required documentation.

3. Notifications of Disposition

All applicants will receive an Executive Summary Statement from the IHS DCCS within 30 days of the conclusion of the ORC outlining the strengths and weaknesses of their application. The summary statement will be sent to the Authorizing Official identified on the face page (SF–424) of the application.

A. Award Notices for Funded Applications

The NoA is the authorizing document for which funds are dispersed to the approved entities and reflects the amount of Federal funds awarded, the purpose of the award, the terms and conditions of the award, the effective date of the award, the budget period, and period of performance. Each entity approved for funding must have a user account in GrantSolutions in order to retrieve the NoA. Please see the Agency Contacts list in Section VII for the systems contact information.

B. Approved but Unfunded Applications

Approved applications not funded due to lack of available funds will be held for one year. If funding becomes available during the course of the year, the application may be reconsidered.

Note: Any correspondence, other than the official NoA executed by an IHS grants management official announcing to the project director that an award has been made to their organization, is not an authorization to implement their program on behalf of the IHS.

VI. Award Administration Information

1. Administrative Requirements

Awards issued under this announcement are subject to, and are administered in accordance with, the following regulations and policies:

A. The criteria as outlined in this program announcement.

B. Administrative Regulations for Grants:

- Uniform Administrative Requirements, Cost Principles, and Audit Requirements for HHS Awards currently in effect or implemented during the period of award, other Department regulations and policies in effect at the time of award, and applicable statutory provisions. At the time of publication, this includes 45 CFR part 75, at *https://www.govinfo.gov/content/pkg/CFR-2021-title45-vol1/pdf/CFR-2021-title45-vol1-part75.pdf.*
- Please review all HHS regulatory provisions for Termination at 45 CFR 75.372, at the time of this publication located at *https://www.govinfo.gov/content/pkg/CFR-2021-title45-vol1/pdf/CFR-2021-title45-vol1-sec75-372.pdf.*

C. Grants Policy:

- HHS Grants Policy Statement, Revised January 2007, at *https://www.hhs.gov/sites/default/files/grants/grants/policies-regulations/hhsgps107.pdf.*

D. Cost Principles:

• Uniform Administrative Requirements for HHS Awards, ''Cost Principles,'' at 45 CFR part 75 subpart E, at the time of this publication located at *https://www.govinfo.gov/content/pkg/CFR-2021-title45-vol1/pdf/CFR-2021-title45-vol1-part75-subpartE.pdf.*

E. Audit Requirements:

• Uniform Administrative Requirements for HHS Awards, ''Audit Requirements,'' at 45 CFR part 75 subpart F, at the time of this publication located at *https://www.govinfo.gov/content/pkg/CFR-2021-title45-vol1/pdf/CFR-2021-title45-vol1-part75-subpartF.pdf.*

F. As of August 13, 2020, 2 CFR part 200 was updated to include a prohibition on certain telecommunications and video surveillance services or equipment. This prohibition is described in 2 CFR part 200.216. This will also be described in the terms and conditions of every IHS grant and cooperative agreement awarded on or after August 13, 2020.

2. Indirect Costs

This section applies to all awardees that request reimbursement of IDC in their application budget. In accordance with HHS Grants Policy Statement, Part II–27, the IHS requires applicants to obtain a current IDC rate agreement and submit it to the DGM prior to the DGM issuing an award. The rate agreement must be prepared in accordance with the applicable cost principles and guidance as provided by the cognizant agency or office. A current rate covers the applicable grant activities under the current award's budget period. If the current rate agreement is not on file with the DGM at the time of award, the IDC portion of the budget will be restricted. The restrictions remain in place until the current rate agreement is provided to the DGM.

Per 45 CFR 75.414(f) Indirect (F&A) costs,

> any non-Federal entity (NFE) [*i.e.,* applicant] that has never received a negotiated indirect cost rate, . . . may elect to charge a de minimis rate of 10 percent of modified total direct costs which may be used indefinitely. As described in Section 75.403, costs must be consistently charged as either indirect or direct costs, but may not be double charged or inconsistently charged as both. If chosen, this methodology once elected must be used consistently for all Federal awards until such time as the NFE chooses to negotiate for a rate, which the NFE may apply to do at any time.

Electing to charge a de minimis rate of 10 percent only applies to applicants that have never received an approved negotiated indirect cost rate from HHS or another cognizant Federal agency. Applicants awaiting approval of their indirect cost proposal may request the 10 percent de minimis rate. When the applicant chooses this method, costs included in the indirect cost pool must not be charged as direct costs to the grant.

Available funds are inclusive of direct and appropriate indirect costs. Approved indirect funds are awarded as part of the award amount, and no additional funds will be provided.

Generally, IDC rates for IHS awardees are negotiated with the Division of Cost Allocation at *https://rates.psc.gov/* or the Department of the Interior (Interior Business Center) at *https://ibc.doi.gov/ICS/tribal.* For questions regarding the indirect cost policy, please call the GMS listed under ''Agency Contacts'' or write to *DGM@ihs.gov.*

3. Reporting Requirements

The awardee must submit required reports consistent with the applicable deadlines. Failure to submit required reports within the time allowed may result in suspension or termination of an active award, withholding of additional awards for the project, or other enforcement actions such as withholding of payments or converting to the reimbursement method of payment. Continued failure to submit required reports may result in the imposition of special award provisions and/or the non-funding or non-award of other eligible projects or activities. This requirement applies whether the delinquency is attributable to the failure of the awardee organization or the individual responsible for preparation of the reports. Per DGM policy, all reports must be submitted electronically by attaching them as a ''Grant Note'' in GrantSolutions. Personnel responsible for submitting reports will be required to obtain a login and password for GrantSolutions. Please use the form under the Recipient User section of *https://www.grantsolutions.gov/home/getting-started-request-a-user-account/.* Download the Recipient User Account Request Form, fill it out completely, and submit it as described on the web page and in the form.

The reporting requirements for this program are noted below.

A. Progress Reports

Program progress reports are required quarterly. The progress reports are due within 90 days after the reporting period ends (specific dates will be listed in the NoA Terms and Conditions). A progress report template will be provided. These reports must include a brief comparison of actual accomplishments to the goals established for the period, a summary of progress to date, or, if applicable, provide sound justification for the lack of progress, and other pertinent information as required. A final report must be submitted within 120 days of expiration of the period of performance.

B. Financial Reports

Federal Financial Reports are due 90 days after the end of each budget period, and a final report is due 120 days after the end of the period of performance.

Awardees are responsible and accountable for reporting accurate information on all required reports: the Progress Reports and the Federal Financial Report.

Failure to submit timely reports may result in adverse award actions blocking access to funds.

C. Data Collection and Reporting

The grantee will participate in periodic (not more frequently than monthly) web-based calls with the program office or designee and the other recipients to share their progress, experience, and tools and resource that might be useful for other recipients. The grantee will be expected to work with the program office to develop a driver diagram (an action-oriented logic model) that describes the comprehensive approach to care and services for persons living with dementia and their caregivers and identifies key performance metrics based on their evaluation plan.

The grantee will be expected to share, on a quarterly basis, the tools, resources, reports, and presentations produced that may support the development of programs by other Tribes, Tribal organizations, or Urban Indian health programs.

D. Federal Sub-Award Reporting System (FSRS)

This award may be subject to the Transparency Act sub-award and executive compensation reporting requirements of 2 CFR part 170.

The Transparency Act requires the OMB to establish a single searchable database, accessible to the public, with information on financial assistance awards made by Federal agencies. The Transparency Act also includes a requirement for awardees of Federal grants to report information about first-tier sub-awards and executive compensation under Federal assistance awards.

The IHS has implemented a Term of Award into all IHS Standard Terms and Conditions, NoAs, and funding announcements regarding the FSRS reporting requirement. This IHS Term of

Award is applicable to all IHS grant and cooperative agreements issued on or after October 1, 2010, with a $25,000 sub-award obligation threshold met for any specific reporting period.

For the full IHS award term implementing this requirement and additional award applicability information, visit the DGM Grants Management website at *https://www.ihs.gov/dgm/policytopics/.*

E. Non-Discrimination Legal Requirements for Awardees of Federal Financial Assistance (FFA)

The awardee must administer the project in compliance with Federal civil rights laws, where applicable, that prohibit discrimination on the basis of race, color, national origin, disability, age, and comply with applicable conscience protections. The awardee must comply with applicable laws that prohibit discrimination on the basis of sex, which includes discrimination on the basis of gender identity, sexual orientation, and pregnancy. Compliance with these laws requires taking reasonable steps to provide meaningful access to persons with limited English proficiency and providing programs that are accessible to and usable by persons with disabilities. The HHS Office for Civil Rights provides guidance on complying with civil rights laws enforced by HHS. See *https://www.hhs.gov/civil-rights/for-providers/provider-obligations/index.html* and *https://www.hhs.gov/civil-rights/for-individuals/nondiscrimination/index.html.*

- Recipients of FFA must ensure that their programs are accessible to persons with limited English proficiency. For guidance on meeting your legal obligation to take reasonable steps to ensure meaningful access to your programs or activities by limited English proficiency individuals, see *https://www.hhs.gov/civil-rights/for-individuals/special-topics/limited-english-proficiency/fact-sheet-guidance/index.html* and *https://www.lep.gov.*
- For information on your specific legal obligations for serving qualified individuals with disabilities, including reasonable modifications and making services accessible to them, see *https://www.hhs.gov/civil-rights/for-individuals/disability/index.html.*
- HHS funded health and education programs must be administered in an environment free of sexual harassment. See *https://www.hhs.gov/civil-rights/for-individuals/sex-discrimination/index.html.*
- For guidance on administering your program in compliance with applicable Federal religious nondiscrimination laws and applicable Federal conscience protection and associated anti-discrimination laws, see *https://www.hhs.gov/conscience/conscience-protections/index.html* and *https://www.hhs.gov/conscience/religious-freedom/index.html.*
- Pursuant to 45 CFR 80.3(d), an individual shall not be deemed subjected to discrimination by reason of their exclusion from benefits limited by Federal law to individuals eligible for benefits and services from the IHS.

F. Federal Awardee Performance and Integrity Information System (FAPIIS)

The IHS is required to review and consider any information about the applicant that is in the FAPIIS at *https://www.fapiis.gov/fapiis/#/home* before making any award in excess of the simplified acquisition threshold (currently $250,000) over the period of performance. An applicant may review and comment on any information about itself that a Federal awarding agency previously entered. The IHS will consider any comments by the applicant, in addition to other information in FAPIIS, in making a judgment about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants, as described in 45 CFR 75.205.

As required by 45 CFR part 75 Appendix XII of the Uniform Guidance, NFEs are required to disclose in FAPIIS any information about criminal, civil, and administrative proceedings, and/or affirm that there is no new information to provide. This applies to NFEs that receive Federal awards (currently active grants, cooperative agreements, and procurement contracts) greater than $10 million for any period of time during the period of performance of an award/project.

Mandatory Disclosure Requirements

As required by 2 CFR part 200 of the Uniform Guidance, and the HHS implementing regulations at 45 CFR part 75, the IHS must require an NFE or an applicant for a Federal award to disclose, in a timely manner, in writing to the IHS or pass-through entity all violations of Federal criminal law involving fraud, bribery, or gratuity violations potentially affecting the Federal award.

All applicants and awardees must disclose in writing, in a timely manner, to the IHS and to the HHS Office of Inspector General all information related to violations of Federal criminal law involving fraud, bribery, or gratuity violations potentially affecting the Federal award. 45 CFR 75.113.

Disclosures must be sent in writing to:

U.S. Department of Health and Human Services, Indian Health Service, Division of Grants Management, ATTN: Marsha Brookins, Director, 5600 Fishers Lane, Mail Stop: 09E70, Rockville, MD 20857, (Include ''Mandatory Grant Disclosures'' in subject line), Office: (301) 443–4750, Fax: (301) 594–0899, Email: *DGM@ihs.gov.*

AND

U.S. Department of Health and Human Services, Office of Inspector General, ATTN: Mandatory Grant Disclosures, Intake Coordinator, 330 Independence Avenue SW, Cohen Building, Room 5527, Washington, DC 20201, URL: *https://oig.hhs.gov/fraud/report-fraud/,* (Include ''Mandatory Grant Disclosures'' in subject line), Fax: (202) 205–0604 (Include ''Mandatory Grant Disclosures'' in subject line) or, Email: *MandatoryGranteeDisclosures@oig.hhs.gov.*

Failure to make required disclosures can result in any of the remedies described in 45 CFR 75.371 Remedies for noncompliance, including suspension or debarment (see 2 CFR part 180 and 2 CFR part 376).

VII. Agency Contacts

1. Questions on the program matters may be directed to: Dr. Jolie Crowder, National Elder Services Consultant, Office of Clinical and Preventive Services, Division of Clinical and Community Services, Indian Health Service, 5600 Fishers Lane, Mailstop: 08N34–A, Rockville, MD 20857, Phone: (301) 526–6592, Fax: (301) 594–6213, Email: *jolie.crowder@ihs.gov.*

2. Questions on grants management and fiscal matters may be directed to: Donald Gooding, Grants Management Specialist, Indian Health Service, Division of Grants Management, 5600 Fishers Lane, Mail Stop: 09E70, Rockville, MD 20857, Phone: (301) 443–2298, Email: *Donald.Gooding@ihs.gov.*

3. For technical assistance with *Grants.gov*, please contact the *Grants.gov* help desk at 800–518–4726, or by email at *support@grants.gov.*

VIII. Other Information

The Public Health Service strongly encourages all grant, cooperative agreement, and contract awardees to provide a smoke-free workplace and promote the non-use of all tobacco products. In addition, Public Law 103–227, the Pro-Children Act of 1994, prohibits smoking in certain facilities (or in some cases, any portion of the facility) in which regular or routine education, library, day care, health care,

or early childhood development services are provided to children. This is consistent with the HHS mission to protect and advance the physical and mental health of the American people.

Roselyn Tso,

Director, Indian Health Service.

[FR Doc. 2023–06455 Filed 3–28–23; 8:45 am]

BILLING CODE P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute of Diabetes and Digestive and Kidney Diseases; Notice of Closed Meeting

Pursuant to section 10(d) 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 Diabetes and Digestive and Kidney Diseases Special Emphasis Panel; PAR22–069 High Impact, Interdisciplinary Science in NIDDK Research Areas: Hematology (RC2).

Date: April 11, 2023.

Time: 11:00 a.m. to 1:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Democracy II, 6707 Democracy Blvd., Bethesda, MD 20892 (Virtual Meeting).

Contact Person: Charlene J. Repique, Ph.D., Scientific Review Officer, NIDDK/Scientific Review Branch, National Institutes of Health, 6707 Democracy Blvd., Room 7013, Bethesda, MD 20892, (301) 594–7791, *charlene.repique@nih.gov*.

This notice is being published less than 15 days prior to the meeting due to the timing limitations imposed by the review and funding cycle.

(Catalogue of Federal Domestic Assistance Program Nos. 93.847, Diabetes, Endocrinology and Metabolic Research; 93.848, Digestive Diseases and Nutrition Research; 93.849, Kidney Diseases, Urology and Hematology Research, National Institutes of Health, HHS)

Dated: March 24, 2023.

Miguelina Perez,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2023–06496 Filed 3–28–23; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG–2023–0242]

National Merchant Mariner Medical Advisory Committee; April 2023 Meetings

AGENCY: U.S. Coast Guard, Department of Homeland Security.

ACTION: Notice of federal advisory committee meeting.

SUMMARY: The National Merchant Mariner Medical Advisory Committee (Committee) will conduct a series of meetings over two days in Piney Point, MD to discuss issues relating to medical certification determinations for issuance of licenses, certificates of registry, merchant mariners' documents, and merchant mariner credentials; medical standards and guidelines for the physical qualifications of operators of commercial vessels; medical examiner education; and medical research.

DATES: *Meetings:* The National Merchant Mariner Medical Advisory Committee is scheduled to meet on Tuesday, April 25, 2023, from 9 a.m. until 4:30 p.m. Eastern Daylight Time Zone (EDT) and Wednesday, April 26, 2023, from 9 a.m. until 4:30 p.m. (EDT). Committee meetings on Tuesday, April 25 and Wednesday, April 26, will include periods during which the Committee will break into subcommittees (open to public). These meetings may adjourn early if the Committee has completed its business.

Comments and supporting documentation: To ensure your comments are received by Committee members before the meeting, submit your written comments no later than April 18, 2023.

ADDRESSES: The meeting will be held at the Paul Hall Media Center in Piney Point, MD. Additional information about the facility can be found at: *https://www.seafarers.org/training-and-careers/paul-hall-center/driving-directions/.*

Pre-registration Information: Pre-registration is required for in-person access to the meeting. If you are not a member of the Committee and do not represent the Coast Guard, you must request in-person attendance by contacting the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this notice to be allowed entry to the meeting.

The National Merchant Mariner Medical Advisory Committee is committed to ensuring all participants have equal access regardless of disability status. If you require reasonable accommodation due to a disability to fully participate, please email Ms. Pamela Moore at *pamela.j.moore@uscg.mil* or call at (202) 372–1361 as soon as possible.

Instructions: You are free to submit comments at any time, including orally at the meetings as time permits, but if you want Committee members to review your comment before the meeting, please submit your comments no later than April 18, 2023. We are particularly interested in comments regarding the topics in the ''Agenda'' section below. We encourage you to submit comments through the Federal eRulemaking Portal at *https://www.regulations.gov.* If your material cannot be submitted using *https://www.regulations.gov,* call or email the individual in the **FOR FURTHER INFORMATION CONTACT** section of this document for alternate instructions. You must include the docket number USCG–2023–0242. Comments received will be posted without alteration at *https://www.regulations.gov,* including any personal information provided. You may wish to review the Privacy and Security notice available on the homepage *https://www.regulations.gov,* and DHS's eRulemaking System of Records notice (85 FR 14226, March 11, 2020). If you encounter technical difficulties with comment submission, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this notice.

Docket Search: Documents mentioned in this notice as being available in the docket, and all public comments, will be in our online docket at *https://www.regulations.gov* and can be viewed by following that website's instructions. Additionally, if you go to the online docket and sign-up for email alerts, you will be notified when comments are posted.

FOR FURTHER INFORMATION CONTACT: Ms. Pamela Moore, Alternate Designated Federal Officer of the National Merchant Mariner Medical Advisory Committee, telephone (202) 372–1361, or email *pamela.j.moore@uscg.mil.*

SUPPLEMENTARY INFORMATION: Notice of these meetings is in compliance with the *Federal Advisory Committee Act* (Pub. L. 117–286, 5 U.S.C., ch. 10). The Committee is authorized by section 601

of the *Frank LoBiondo Coast Guard Authorization Act of 2018,* (Pub. L. 115–282, 132 Stat. 4190), and is codified in 46 U.S.C. 15104. The Committee operates under the provisions of the *Federal Advisory Committee Act,* and 46 U.S.C. 15109. The Committee provides advice and recommendation to the Secretary of Homeland Security through the Commandant of the United States Coast Guard on matters relating to: (a) medical certification determinations for issuance of licenses, certificates of registry, and merchant mariners' documents; (b) medical standards and guidelines for the physical qualifications of operators of commercial vessels; (c) medical examiner education; and (d) medical research.

Agenda: The National Merchant Mariner Medical Advisory Committee will meet on Tuesday, April 25, 2023, and Wednesday, April 26, 2023, to review, discuss, deliberate, and formulate recommendations, as appropriate on the following topics:

Day 1

The agenda for the April 25, 2023 meeting is as follows:

(1) The full Committee will meet briefly to discuss the subcommittees' business/task statements, which are listed under paragraph (10) under Day 2 below.

(2) Introduction of members and discussion of committee business.

(3) During the morning session of the meeting, subcommittees will separately address and work on the following task statements, which are available for viewing at *https://homeport.uscg.mil/missions/federal-advisory-committees/national-merchant-mariner-medical-advisory-committee-(nmedmac)/task-statements:*

(a.) Task Statement 21–02, Communication Between External Stakeholders and the Mariner Credentialing Program;

(b.) Task Statement 22–01, Sexual Assault and Sexual Harassment Prevention and Culture Change in the Merchant Marine; and

(c.) Task Statement 21–04, Recommendations on Appropriate Diets and Wellness for Mariners While Onboard Merchant Vessels.

(4) During the afternoon session of the meeting, subcommittees will separately address and work on the following task statements, which are available for viewing at *https://homeport.uscg.mil/missions/federal-advisory-committees/national-merchant-mariner-medical-advisory-committee-(nmedmac)/task-statements:*

(a.) Task Statement 21–02, Communication Between External Stakeholders and the Mariner Credentialing Program;

(b.) Task Statement 22–01, Sexual Assault and Sexual Harassment Prevention and Culture Change in the Merchant Marine; and

(c.) Task Statement 21–01, Recommendations on Mariner Mental Health.

(5) Report of subcommittees. At end of the day, the Chair or Co-Chairs of the subcommittees will report to the full Committee on what was accomplished. The full Committee will not take action on this date and the Chair or Co-Chairs of the subcommittees will present a full report to the Committee on Day 2 of the meeting.

(6) Adjournment of meeting.

Day 2

The agenda for the April 26, 2023 meeting is as follows:

(1) Introduction.

(2) Designated Federal Officer remarks.

(3) Roll call of Committee members and determination of a quorum.

(4) Adoption of the agenda.

(5) Acceptance of Minutes from Committee Meeting Three.

(6) Remarks from U.S. Coast Guard Leadership.

(7) Office of Merchant Mariner Credentialing presentation.

(8) Sexual Assault and Sexual Harassment Prevention update.

(9) National Maritime Center presentation.

(10) Reports from the subcommittee Chair or Co-Chairs. The Committee will review the information presented on the following Task Statements and deliberate on any recommendations presented by the subcommittees; recommendations may be approved and completed tasks may be closed. Official action on these topics may be taken:

(a) Task Statement 21–01, Recommendations on Mariner Mental Health;

(b) Task Statement 21–02, Communication Between External Stakeholders and the Mariner Credentialing Program;

(c) Task Statement 21–03, Medical Certification for Military to Mariner Applicants;

(d) Task Statement 21–04, Recommendations on Appropriate Diets and Wellness for Mariners While Onboard Merchant Vessels;

(e) Task Statement 21–06, Review of Medical Regulations and Policy to Identify Potential Barriers to Women in the U.S. Maritime Workforce; and

(f) Task Statement 22–01, Sexual Assault and Sexual Harassment Prevention and Culture Change in the Merchant Marine.

(11) Public comment period.

(12) Closing remarks.

(13) Adjournment of meeting.

A copy of all meeting documentation will be available at *https://homeport.uscg.mil/missions/federal-advisory-committees/national-merchant-mariner-medical-advisory-committee-(nmedmac)* by April 18, 2023. Alternatively, you may contact the individual noted in the **FOR FURTHER INFORMATION CONTACT** section above.

Public comments or questions will be taken throughout the meetings as the Committee discusses the issues, and prior to deliberations and voting. There will also be a public comment period during the meeting on April 26, 2023, after reports of the subcommittees, at approximately 4:15 p.m. (EDT). Public comments will be limited to 3 minutes per speaker. Please note that the public comments period will end following the last call for comments. Please contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section to register as a speaker.

Dated: March 23, 2023.

Jeffrey G. Lantz,

Director of Commercial Regulations and Standards.

[FR Doc. 2023–06484 Filed 3–28–23; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG–2023–0244]

Recertification of Prince William Sound Regional Citizens' Advisory Council

AGENCY: Coast Guard, DHS.

ACTION: Notice of recertification.

SUMMARY: The Coast Guard announces the recertification of the Prince William Sound Regional Citizens' Advisory Council (PWSRCAC) as an alternative voluntary advisory group for Prince William Sound, Alaska. This certification allows the PWSRCAC to monitor the activities of terminal facilities and crude oil tankers under an alternative composition, other than prescribed, the Prince William Sound Program established by the Oil Terminal and Oil Tanker Environmental Oversight and Monitoring Act of 1990.

DATES: This recertification is effective for the period from March 1, 2023 through February 29, 2024.

FOR FURTHER INFORMATION CONTACT: For information about this document, call or

email LT Ben Bauman, Seventeenth Coast Guard District (dpi), by phone at (907) 463–2809 or email at *Benjamin.A.Bauman@uscg.mil.*

SUPPLEMENTARY INFORMATION:

Background and Purpose

The Coast Guard published guidelines on December 31, 1992 (57 FR 62600), to assist groups seeking recertification under the Oil Terminal and Oil Tanker Environmental Oversight and Monitoring Act of 1990 (33 U.S.C. 2732) (the Act). The Coast Guard issued a policy statement on July 7, 1993 (58 FR 36504), to clarify the factors that the Coast Guard would be considering in making its determination as to whether advisory groups should be certified in accordance with the Act, and the procedures which the Coast Guard would follow in meeting its certification responsibilities under the Act. Most recently, on September 16, 2002 (67 FR 58440), the Coast Guard changed its policy on recertification procedures for regional citizen's advisory council by requiring applicants to provide comprehensive information every three years. For each of the two years between the triennial application procedures, applicants submit a letter requesting recertification that includes a description of any substantive changes to the information provided at the previous triennial recertification. Further, public comment is only solicited during the triennial comprehensive review.

The Alyeska Pipeline Service Company pays the PWSRCAC $3.7 million annually in the form of a long-term contract. In return for this funding, the PWSRCAC must annually show that it ''fosters the goals and purposes'' of OPA 90 and is ''broadly representative of the communities and interests in the vicinity of the terminal facilities and Prince William Sound.'' The PWSRCAC is an independent, nonprofit organization founded in 1989. Though it receives federal oversight like many independent, nonprofit organizations, it is not a federal agency. The PWSRCAC is a local organization that predates the passage of OPA 90. The existence of the PWSRCAC was specifically recognized in OPA 90 where it is defined as an ''alternative voluntary advisory group.'' Alyeska Pipeline Service Company funds the PWSRCAC, and the Coast Guard ensures the PWSRCAC operates in a fashion that is broadly consistent with OPA 90.

Discussion of Comments

On December 22, 2022, the Coast Guard published a Notice; Request for comments titled ''Application for Recertification of Prince William Sound Regional Citizens' Advisory Council'' in the **Federal Register** (87 FR 78701). We received 76 comments, all in support of the PWSRCAC recertification. No public meeting was requested. The comments consistently cited PWSRCAC's collaborative partnerships in furthering the respective communities' interest to promote safety, to maintain effective prevention and response efforts regarding oil pollution, and to protect the sensitive marine environment along Alaska's coastline.

Recertification

By letter dated February 25, 2023, the Commander, Seventeenth Coast Guard District, certified that the PWSRCAC qualifies as an alternative voluntary advisory group under 33 U.S.C. 2732(o). This recertification terminates on February 29, 2024.

Dated: March 6, 2023.

Nathan A. Moore,

Rear Admiral, U.S. Coast Guard, Commander, Seventeenth Coast Guard District.

[FR Doc. 2023–06473 Filed 3–28–23; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–7070–N–15; OMB Control No. 2528–0321]

30-Day Notice of Proposed Information Collection: Evaluation of the Supportive Services Demonstration

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:* April 28, 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: Anna P. Guido, Reports Management Officer, REE, Department of Housing and Urban Development, 451 7th Street SW, Washington, DC 20410; email Anna P. Guido at *Anna.P.Guido@hud.gov* or 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.

The **Federal Register** notice that solicited public comment on the information collection for a period of 60 days was published on January 4, 2023, at 88 FR 365.

A. Overview of Information Collection

Title of Information Collection: Evaluation of the Supportive Services Demonstration.

OMB Approval Number: 2528–0321.

Type of Request: Revision.

Form Number: None.

Description of the need for the information and proposed use: The U.S. Department of Housing and Urban Development (HUD) has contracted with Abt Associates Inc. and L&M Policy Research to continue conducting an evaluation of HUD's Supportive Services Demonstration (demonstration, or SSD), which was extended by Congress for an additional two years in the Consolidated Appropriations Act, 2021. The demonstration tests the Integrated Wellness in Supportive Housing (IWISH) model and is designed to learn whether structured health and wellness support can help older adults living in affordable housing successfully age in place. The demonstration funds a full-time Resident Wellness Director and part-time Wellness Nurse to work in HUD-assisted housing developments that either predominantly or exclusively serve households headed by people aged 62 and over. The demonstration is testing whether IWISH will affect unplanned hospitalizations and the use of other types of acute care with high healthcare costs, the use of primary and nonacute care, the length of stay in housing, transitions to long-term care facilities, and mortality. Eligible HUD-assisted properties applied for the

demonstration and were randomly assigned to one of three groups:

1. A ''treatment group'' that received grant funding to hire a Resident Wellness Director and Wellness Nurse and implement the SSD model (40 properties).

2. An ''active control'' group that did not receive grant funding but received a stipend to participate in the evaluation (40 properties).

3. A ''passive control'' group that received neither grant funding nor a stipend (44 properties).

The random assignment permits an evaluation that quantifies the impact of the SSD model by comparing outcomes at the 40 treatment group properties to outcomes at the 84 properties in the active and passive control groups.

Under contract with HUD's Office of Policy Development and Research, Abt Associates Inc. has been conducting a two-part evaluation: a process study to describe the implementation of the demonstration, and an impact study to measure the effect of the SSD model on residents' use of healthcare services and housing stability. The first phase of the demonstration ran from October 2017–October 2020. The Continuing Appropriations Act, 2021 and Other Extensions Act and the Consolidated Appropriations Act, 2021 extended the demonstration for an additional two years. Abt will continue to evaluate the demonstration through September 2026.

During the first phase of the evaluation, Abt Associates Inc. received OMB approval for the following primary data collection activities:

- Questionnaires with staff from the treatment and active control properties.
- Focus groups with residents of treatment and active control properties and caregivers of residents of the treatment properties.
- Interviews with Resident Wellness Directors and Wellness Nurses at the treatment group properties.
- Interviews with Service Coordinators at the active control group properties
- Interviews with representatives of organizations that own or manage the active control or treatment properties.

This request is for an additional round of data collection for the activities listed below:

- Interviews with Resident Wellness Directors and Wellness Nurses at each of the 40 treatment properties.
- Interviews with property owners or managers at the 40 treatment properties and 40 active control properties.
- Interviews with up to 150 residents of 10 of the treatment properties.

The purpose of these activities is to collect data from demonstration staff, property owners and managers, and residents about the continued implementation of the demonstration, including the model's strengths and weakness, and how resident wellness services and activities compare across treatment and control properties. The evaluation will culminate in a comprehensive report that will be made publicly available.

Respondents: Resident Wellness Directors, Wellness Nurses, Property owners and managers, and HUD-assisted residents (aged 62 and over).

Estimated Number of Respondents: Up to 54 Resident Wellness Directors, 44 Wellness Nurses, 40 property owners and managers of treatment properties, 40 property owners and managers of active control properties, and 150 HUD-assisted residents aged 62 and older living in treatment properties.

Frequency of Response: Once for all interviews.

Average Hours per Response: Interviews with Resident Wellness Directors and Wellness Nurses will take an estimated take 3 hours each, interviews with property owners and managers will take an estimated 2 hours each, resident interviews conducted in the resident's preferred language an estimated 1.5 hours each, and resident interviews conducted via on-demand interpretation will take an estimated 3 hours each.

EXHIBIT A–2—ESTIMATED HOUR AND COST BURDEN OF INFORMATION COLLECTION

Information collection	Number of respondents	Frequency of response	Responses per annum	Burden hour per response	Annual burden hour	Hourly cost per response	Annual cost
Interviews with Resident Wellness Directors	54	1	54	3	162	[1] $40.00	$6,480.00
Interviews with Wellness Nurses	44	1	44	3	132	[2] 63.99	8,446.68
Interviews with Treatment Group Property Owners and Managers	40	1	40	2	80	[3] 51.23	4,098.40
Interviews with Active Control Property Owners and Managers	40	1	40	2	80	[3] 51.23	4,098.40
Resident Interviews conducted in core languages	120	1	120	1.5	180	[4] 9.63	1,733.40
Resident Interviews conducted via on demand interpretation	30	1	30	3	90	[4] 9.63	866.70
Total	328				724		25,723.58

[1] Estimated cost burden for Resident Wellness Directors participating in interviews is based on the average hourly wage for private industry workers by industry sector. U.S. Bureau of Labor Statistics, June 2022, for the healthcare and social assistance industry ($40.00), accessed September 26, 2022 at Table 4. Private industry workers by occupational and industry group—2022 Q02 Results (*bls.gov*).

[2] Estimated cost burden for property Wellness Nurses participating in interview is based on the average hourly wage for private industry workers by industry sector. U.S. Bureau of Labor Statistics, June 2022, for Registered Nurse Occupations ($63.99), accessed September 26, 2022 at Table 4. Private industry workers by occupational and industry group—2022 Q02 Results (*bls.gov*).

[3] Estimated cost burden for property owners and managers is a blended rate based on average hourly and weekly earnings of all employees on private nonfarm payrolls by industry sector, seasonally adjusted. U.S. Bureau of Labor Statistics, June 2022 for all private industry workers ($38.91) and the hourly cost for management, professional, and related workers ($63.55). Accessed September 26, 2022: Table 4. Private industry workers by occupational and industry group—2022 Q02 Results (*bls.gov*).

[4] To estimate hourly cost for the residents, we used average Social Security benefit for retired works in June 2022, (accessed in September 26, 2022: *https://www.ssa.gov/news/press/factsheets/basicfact-alt.pdf*) which was $1,669 into an hourly rate of $9.63 per hour (by multiplying by 12 months and dividing by 2,080 hours).

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.

(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.

Anna P. Guido,

Department Reports Management Office, Office of Policy Development and Research, Chief Data Officer.

[FR Doc. 2023–06458 Filed 3–28–23; 8:45 am]

BILLING CODE 4210–67–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–7070–N–16; OMB Control No. 2503–0034]

30-Day Notice of Proposed Information Collection: Ginnie Mae Digital Collateral Program

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:* April 28, 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: Anna P. Guido, Reports Management Officer, REE, Department of Housing and Urban Development, 451 7th Street SW, Washington, DC 20410; email Anna P. Guido at *Anna.P.Guido@hud.gov* or 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.

The **Federal Register** notice that solicited public comment on the information collection for a period of 60 days was published on January 26, 2023, at 88 FR 5034.

A. Overview of Information Collection

Title of Information Collection: Ginnie Mae Digital Collateral Program.

OMB Approval Number: 2503–0034.

Type of Request: Reinstatement.

Form Number: HUD–11701A; HUD–11701B; HUD–11708–SI.

Description of the need for the information and proposed use: Adapting to the needs of the industry, Ginnie Mae is permitting the securitization of mortgage loans where the note is an eligible eNote. The forms in this request are new forms that are necessary due to the unique requirements of managing eNotes and eMortgages. This collection permits Ginnie Mae to verify: (1) that eIssuers and eMortgages have the specialized knowledge and experience to participate; (2) that eIssuers and eCustodians have the technological capability to service eMortgages and safeguard eMortgage documents; (3) the name and location of the entities responsible for the various Ginnie Mae accounts and eMortgage documents, and (4) those entities that are responsible for servicing the eMortgages that back the Ginnie Mae pools. Ginnie Mae needs this information to mitigate risk and evaluate its business operations, procedures and programs, and assist lenders in processing borrower requests more efficiently. Ginnie Mae also requires the collection of information to ensure that there are no deficiencies, which could affect the pass through of securities to its investors.

Based upon feedback received about the eIssuer Application form (HUD–11701A), we have revised the instructions. The only revision is to the form's instructions which now address subservicing by the eIssuer Applicant.

Information collection	Number of respondents	Frequency of response	Responses per annum	Burden hour per response	Annual burden hours	Hourly cost per response *	Annual cost
eIssuer Application (HUD11701–A)	20	1	20	.5	10	$38	$380
eCustodian Application (HUD 11701–B)	5	1	5	.5	2.5	38	95
Request for Release of Secured Party (HUD 11708–SI)	300	1	300	.05	15	38	570
Total	325	1	325	1.05	27.5	38	1,045

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.

(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.

Anna P. Guido,

Department Reports Management Office, Office of Policy Development and Research, Chief Data Officer.

[FR Doc. 2023–06462 Filed 3–28–23; 8:45 am]

BILLING CODE 4210–67–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–6380–N–01]

Tribal Intergovernmental Advisory Committee Meeting

AGENCY: Office of Assistant Secretary for Public and Indian Housing, HUD.

ACTION: Notice.

SUMMARY: This notice announces the first meeting of HUD's Tribal Intergovernmental Advisory Committee (TIAC). HUD is launching the committee to strengthen the nation-to-nation relationship between HUD and Tribal communities, coordinate policy across all HUD programs, and advise on the housing priorities of the American Indian and Alaska Native peoples. The establishment of this first ever committee follows consistent engagement between HUD and Tribes across the county.

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 Seventh 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

On March 31, 2022 (87 FR 18807), HUD published a notice in the **Federal Register** that announced the final structure of the TIAC and requested the submission of Tribal nominations to the TIAC. On November 29, 2022, HUD published a notice (87 FR 73317) announcing the TIAC membership. Thus, to strengthen HUD's engagement with Tribal Nations, HUD established its first Tribal advisory committee.

II. First Committee Meeting

The first meeting will be held on Wednesday, April 12, 2023, and Thursday, April 13, 2023. On each day, the session will begin at approximately 9 a.m., and adjourn at approximately 5:00 p.m. The meeting is scheduled to take place at the HUD Headquarters Building, 451 7th Street SW, Washington, DC 20410 in the Departmental Conference Room. The Committee will operate under the Tribal government statutory exemption to the Federal Advisory Committee Act (FACA) found in the Unfunded Mandates Reform Act (UMRA) at 2 U.S.C. 1534(b). Accordingly, participation in the meeting is limited to TIAC members. Members of the public may not formally participate in the meeting or make statements during the meeting.

Marcia L. Fudge,

Secretary.

[FR Doc. 2023–06469 Filed 3–28–23; 8:45 am]

BILLING CODE 4210–67–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[Docket No. FWS–R4–ES–2022–0031; FF04E00000–234–FXES11130400000]

Marine Mammal Protection Act; Stock Assessment Reports for Two Stocks of West Indian Manatee

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of availability; response to comments.

SUMMARY: In accordance with the Marine Mammal Protection Act of 1972, as amended, we, the U.S. Fish and Wildlife Service, after consideration of comments received from the public, have revised the marine mammal stock assessment reports (SAR) for two West Indian manatee stocks, the Florida manatee stock (*Trichechus manatus latirostris*) and the Puerto Rico stock of the Antillean manatee (*Trichechus manatus manatus*). We now make both final revised SARs available to the public.

ADDRESSES: *Document Availability:* You may obtain a copy of the stock assessment reports for the Florida manatee stock and Puerto Rico stock of Antillean manatee by either of the following methods:

- *Internet: https://www.regulations.gov.* Search for FWS–R4–ES–2022–0031.
- Write to or call (during normal business hours from 8 a.m. to 4:30 p.m., Monday through Friday) the appropriate individual as described under **FOR FURTHER INFORMATION CONTACT**.

FOR FURTHER INFORMATION CONTACT:

Florida manatee stock: Lourdes Mena, USFWS Florida Ecological Services Field Office, 7915 Baymeadows Way, Suite 200, Jacksonville, FL, by telephone (904–731–3134), or by email (*Lourdes_Mena@fws.gov*).

Puerto Rico manatee stock: Edwin Muñiz, USFWS Caribbean Ecological Services Field Office, P.O. Box 491, Boquerón, PR, by telephone (786–244–0081), or by email (*Edwin_Muniz@fws.gov*).

Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. 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: We announce the availability of the final revised stock assessment reports (SARs) for the Florida manatee stock (*Trichechus manatus latirostris*) and the Puerto Rico stock of the Antillean manatee (*Trichechus manatus manatus*).

Background

Under the Marine Mammal Protection Act of 1972, as amended (MMPA; 16 U.S.C. 1361 *et seq.*) and its implementing regulations in the Code of Federal Regulations (CFR) at 50 CFR part 18, the U.S. Fish and Wildlife Service (Service) regulates the taking; import; and, under certain conditions, possession; transportation; purchasing; selling; and offering for sale, purchase, or export, of marine mammals. One of the goals of the MMPA is to ensure that stocks of marine mammals occurring in waters under U.S. jurisdiction do not experience a level of human-caused mortality and serious injury that is likely to cause the stock to be reduced below its *optimum sustainable population level* (OSP). The OSP is defined under the MMPA as the number of animals which will result in the maximum productivity of the population or the species, keeping in mind the carrying capacity of the habitat and the health of the ecosystem of which they form a constituent element (16 U.S.C. 1362(9)).

To help accomplish the goal of maintaining marine mammal stocks at their OSPs, section 117 of the MMPA requires the Service and the National Marine Fisheries Service (NMFS) to prepare a SAR for each marine mammal stock that occurs in waters under U.S. jurisdiction. A SAR must be based on the best scientific information available; therefore, we prepare it in consultation with an independent Scientific Review Group (SRG) established under section 117(d) of the MMPA. Each SAR must include:

1. A description of the stock and its geographic range;
2. A minimum population estimate, current and maximum net productivity rate, and current population trend;
3. An estimate of the annual human-caused mortality and serious injury by source and, for a strategic stock, other factors that may be causing a decline or impeding recovery of the stock;
4. A description of commercial fishery interactions;
5. A categorization of the status of the stock; and
6. An estimate of the *potential biological removal* (PBR) level.

The MMPA defines the PBR 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 OSP'' (16 U.S.C. 1362(20)). The PBR is the product of the minimum population estimate of the stock (N_{min}); one-half the maximum theoretical or estimated net productivity rate of the stock at a small population size (R_{max}); and a recovery factor (F_r) of between 0.1 and 1.0, which is intended to compensate for uncertainty and unknown estimation errors. This can be written as:

PBR = (N_{min})(½ of the R_{max})(F_r)

Section 117 of the MMPA also requires the Service and the NMFS to review the SARs (a) at least annually for stocks that are specified as strategic stocks, (b) at least annually for stocks for which significant new information is available, and (c) at least once every 3 years for all other stocks. If our review of the status of a stock indicates that it has changed or may be more accurately determined, then the SAR must be revised accordingly.

A *strategic stock* is defined in the MMPA as a marine mammal stock for which the level of direct human-caused mortality exceeds the PBR level; which, based on the best available scientific information, is declining and is likely to be listed as a threatened species under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*), within the foreseeable future; or which is listed as a threatened or endangered species under the ESA, or is designated as depleted under the MMPA (16 U.S.C. 1362(19)).

Stock Assessment Report History for Two Stocks of West Indian Manatee

The SARs for the Florida and Puerto Rico stocks of the West Indian manatee were last revised in 2014. Because the West Indian manatee is listed as a threatened species under the ESA, both stocks are considered strategic. Therefore, the Service reviews the stock assessment annually. If, based on our annual review, we determine that new information (such as new abundance estimates) indicates that a revision is warranted, we will propose a revision. In 2020, based on new information that had become available, the Service initiated revision of the SARs, and once completed, presented them for review to the SRG. Subsequent to that review, the Service published a notice in the **Federal Register** informing the public of the availability of these draft revised SARs and seeking public comment (87 FR 47445, August 3, 2022). These final revised SARs incorporate the comments and suggestions provided to the Service by the SRG and the public, as appropriate.

Summary of Revised Stock Assessment Reports for Two Stocks of West Indian Manatee

The following table summarizes some of the information contained in the revised SARs for the Florida and Puerto Rico stocks of the West Indian manatee, which includes the stocks' N_{min}, R_{max}, F_r, PBR, annual estimated human-caused mortality and serious injury, and status.

In March 2021, the Service declared an Unusual Mortality Event (UME) along the Atlantic coast of Florida for the Florida stock. The event, which began in December 2020 and is ongoing, is associated with phytoplankton blooms and seagrass loss in the Indian River Lagoon. The effect of the UME on population size and trend is not known at this time but will be assessed in the future based on new abundance estimates that are being developed and additional population modeling. We are working closely with our conservation partners to monitor and address the UME. No UME has been declared for the Puerto Rico stock.

SUMMARY—REVISED STOCK ASSESSMENT REPORTS FOR THE FLORIDA AND PUERTO RICO STOCKS OF WEST INDIAN MANATEE

West Indian manatee stock	N_{min}	R_{max}	F_r	PBR	Annual estimated human-caused mortality (5-year average)	Stock status
Florida manatees	8,237	0.062	0.5	127.67	144.8 (Years 2014–2018)	Strategic
Antillean manatees (Puerto Rico)	319	0.04	0.4	2.55	4 (Years 2015–2019)	Strategic

Response to Public Comments

We received comments on the draft SAR for the Florida stock from the Florida Fish and Wildlife Conservation Commission (FWC) and the Center for Biological Diversity. No comments were submitted on the draft SAR for the Puerto Rico stock. We present substantive issues raised in those comments that are pertinent to the SAR for the Florida stock, edited for brevity, along with our responses below.

Comments Specific to the Stock Assessment Report for the Florida Stock

Comment 1: The population estimate of 8,810 Florida manatees, established from Hostetler *et al.* (2018), is likely a gross overestimate of the number of Florida manatees remaining in the wild today. As the SAR recognizes, the ongoing Unusual Mortality Event (UME) is not incorporated into this estimate. Though efforts are underway to produce an updated abundance estimate, this SAR should, at a minimum, incorporate the known deaths from the UME area attributable to starvation.

Response: The draft SAR discussed the basis for the population estimate, acknowledged the ongoing UME, and reported the preliminary data on the number of deaths that have occurred since the UME began. As discussed in the draft SAR, we noted that the effect on the overall population size was currently unknown. We have updated

the final revised SAR to include more recent preliminary data on the number of deaths in the UME area and additional discussion about the possible population-level effects of the UME. We also clarified the reasons why we have not incorporated the UME deaths into the population estimate. The final revised SAR maintains that the 2018 population estimate, which is a point estimate and a 95 percent confidence interval (7,520–10,280), is the best scientific information available. It also notes that the UME is primarily affecting one of the four management units (the Atlantic Coast unit) and that manatees in the other three units are generally exhibiting positive population growth.

Comment 2: The Service should publish a revised SAR when the updated abundance estimate, including total mortality from the ongoing UME, is published.

Response: The draft SAR discussed that the FWC was in the process of collecting new aerial survey data to be used to produce an updated abundance estimate. We have updated the SAR to note that surveys of the East Coast of Florida were flown in December 2022 and that we still expect an updated abundance estimate to be available in 2023 or 2024.

Comment 3: The SAR relies on productivity rates that do not account for recent threats to the Florida manatee, including the ongoing UME and degradation of seagrass habitat across the State. Not only are the adult survival rates significantly impacted by the death of nearly 2,000 Florida manatees in 2021 and 2022 combined, but starvation stressors have likely impacted reproductivity rates as well. The death of large numbers of female manatees—at least 415 identified in 2021 alone—also exacerbates reproductivity concerns by decreasing calving rates and orphaning existing calves.

Response: The survival and reproductive rates reported in the draft SAR are the best scientific information available. The draft SAR acknowledged the ongoing UME but stated the effects of the UME were currently unknown. The final revised SAR retains these same conclusions; however, we recognize that the effects of the UME on survival and reproductive rates on the population stock as a whole are still being assessed, and we anticipate additional information on the effects of the UME in the future. Estimates of reproductive rates (and survival rates) are most often obtained and tracked using long-term longitudinal studies of known identifiable manatees. Therefore, it likely will be several years before data are available from the UME area that can be used for this purpose. The Florida Fish and Wildlife Conservation Commission is working on an Integrated Population Model (IPM) for the Atlantic Coast management unit that will provide additional insight into the effects of the UME on population size and other important metrics, including adult survival and reproductive rates. The IPM will use the new abundance estimates that are currently being developed, so it will likely be 2024 or later before the IPM results will be available. Even if available information indicated reduced reproduction in the area of the UME, this information would not affect the maximum theoretical net productivity rate, which is what is used in the calculation of Potential Biological Removal (PBR).

Comment 4: The ongoing UME underscores the numerous threats of habitat destruction facing the Florida manatee, which should be adequately reflected in the SAR. Seagrasses on which manatees depend are increasingly being destroyed. Warm water refugia where manatees overwinter are threatened. Coastal development also threatens manatee habitat.

Response: The draft SAR discussed all sources of human-caused mortality and serious injury, as well as the ongoing UME and all other causes of mortality. The *Habitat Issues* section contains discussions of the importance of warm water sites and available forage, and current and future threats. The final revised SAR includes updated and additional discussion about the ongoing UME, and it meets all of the informational requirements of the MMPA section 117.

Comment 5: While the 2022 SAR for the Florida manatee stock provides a cursory overview of these harms, the population estimate of 8,810 is an unacceptable starting point for recovery discussions. Section 117 of the MMPA requires the Service to prepare a SAR to help accomplish the goal of maintaining marine mammal stocks at their optimum sustainable population levels. SARs must be based on the best scientific information available, and there exists ample information to incorporate deaths from the ongoing UME. Moreover, the Service should immediately revise the SAR when the forthcoming abundance estimate is released, as it will provide substantial new information regarding the Florida manatee stock. This new information will be critical when developing ongoing strategy for manatee conservation, including determining potential biological removal levels.

Response: As mentioned above, this final revised SAR contains the best scientific information available and meets the informational requirements of the MMPA. To the extent the commenter is referring to conservation strategies and other documents for the manatee, which are governed by different legal authorities and standards, such as the ESA, these comments are beyond the scope of this action. In addition, the MMPA requires the annual review of stock assessments for strategic stocks, which includes the manatee. During the Service's annual review, if we determine that new information (such as new abundance estimates) indicate that a revision is warranted, we will propose a revision. This final revised SAR includes additional discussion about possible population-level effects of the UME.

Comment 6: While Slone *et al.* 2017 serves as a recent source of information to support the page 2 statement that manatee movements outside of Florida appear to be increasing, we recommend citing accessible publications such as Pabody *et al.* 2009 and Hieb *et al.* 2017.

Response: Pabody, *et al.* 2009 was already included in the draft SAR. We have added a citation to Hieb *et al.* 2017 in this final revised SAR.

Comment 7: Regarding Florida manatee regional management units on page 2 (and illustrated on page 3), the border for the Atlantic Coast unit and Upper St. Johns River unit should be described as the Clay–Putnam Counties line as opposed to Palatka.

Response: We did not make the suggested change because the commenter did not provide a citation supporting this change. The boundary described in the SAR is the same boundary referenced in the 2001 Florida Manatee Recovery Plan and FWC's Final Biological Status Review of the Florida Manatee (Haubold *et al.,* 2006).

Comment 8: If addressing implementing regulations, we recommend reference to the Florida Manatee Sanctuary Act (Ch. 379.2431(2), Florida Statute) as this regulatory and conservation authority provides for the management actions as defined in the 2007 FWC Manatee Management Plan.

Response: Although the Florida Manatee Sanctuary Act was referenced in the draft SAR in the *Status of Stock* section, we added another reference as suggested in the *Stock Definition and Geographic Range* section of the final revised SAR.

Comment 9: The minimum population estimate (N_{min}) for the Florida manatee stock is calculated using the equation for Minimum

Population Estimate provided in NMFS (2016): $N_{min} = N/exp\ (0.842 \times [ln(1+[CV(N)]^2)]^{1/2})$. We recommend including an explanation of what the Minimum Population Estimate implies. For example, the Minimum Population Estimate provides a conservative estimate of the 20th percentile of the population distribution.

Response: The recommended explanation is an accurate statement, but we did not add additional information to the final revised SAR in response to this comment because we do not believe most readers need the SAR to provide that detailed of an explanation. Readers wanting a more thorough understanding of the basis for the equation for the minimum population estimate or what it signifies can refer to the cited source for more information.

Comment 10: The most recent adult-survival-rate analysis for the Florida manatee identifies mean adult survival rates of over 97 percent. It should be noted that these are baseline rates and do not include episodic factors affecting survival, including events such as red tide and significant periods of cold temperature.

Response: As with Comment 9, the recommended additional information is an accurate statement, but we did not add more explanation to the final revised SAR in response to this comment because we do not believe most readers need the SAR to provide that detailed of an explanation. The SAR notes that the reported rates are baseline mean adult survival and reproductive rates that were based on data collected over a 20+ year period. Readers wanting a more thorough understanding of how the rates are calculated can refer to the cited source for more information.

Comment 11: We request additional research citations for this chapter: Reinert *et al.* 2017: Entanglement in and ingestion of fishing gear and other marine debris by Florida manatees, and Bassett *et al.* 2020: Quantifying sublethal Florida manatee-watercraft interactions by examining scars on manatee carcasses.

Response: We added a citation to Bassett *et al.* 2020 in the final revised SAR and in the References. Reinert *et al.* 2017 was already cited in the draft SAR, but we added an additional citation to it in the suggested section.

Comment 12: Manatee mortality data are available and verified through December 2020 with preliminary mortality data available through 2021 and much of 2022. We recommend inclusion of this recent data within this chapter, including the associated tables, or explanation of why the SAR does not report this data.

Response: We added additional discussion in the SAR to address this comment and explain the data range used in the tables. The data summarized in the tables and discussed in the SAR are based on confirmed mortality data. Preliminary data are not included because these data are subject to change as to cause of death and other attributes. In discussions of the ongoing UME, the reported total number of deaths does include preliminary data (to provide context on the scale of the event), but no assessments of these data have been made as to cause of death. The mortality and rescue data summarized in the SAR include data through 2018, the last full year for which confirmed mortality data were available from the FWC at the time this report was prepared and submitted to the Atlantic SRG for peer review. After peer review, FWC provided confirmed mortality data covering all of 2019 and 2020. Due to both the timing of when these data became available and to changes FWC made to their data collection protocols, these data are discussed but are not included in the tables.

Comment 13: Manatee mortality should include a description of other cause of death (COD) categories, including Verified Not Necropsied and Undetermined. Reported data on human-related COD is likely an underestimate as there may be cases of human-related death that were not quantified if a carcass was not recovered, necropsied, or a COD was unable to be determined. We recommend including two columns in table 4 to distinguish between Other and Undetermined COD categories as opposed to ''Other.''

Response: Descriptions of other causes of death were included in the draft SAR, as was a citation to the FWC website that describes all the categories; however, we have added additional explanation and discussion in the final revised SAR, particularly for the Verified Not Necropsied (VNN) category. The draft SAR explained that the cause of some deaths cannot be determined and that the true number of deaths (total or in any given category) is not known because the number of carcasses that are not found or reported is unknown. We did not split the ''Other'' category as suggested given the focus of the SAR is on human-related deaths; no human-related deaths are included in the VNN and Undetermined categories that comprise the ''Other'' category used in the SAR.

Comment 14: The statement referring to carrying-capacity and cited as Provancha *et al.* 2012 does not consider the thermal quality of warm-water sites. We recommend further discussion on insufficient or non-dependable warm water as a limiting factor in addition to physical constraints such as vegetation.

Response: Warm-water issues were discussed in the draft SAR in sufficient detail, consistent with the requirements of the MMPA. Readers wanting a more thorough understanding of potential carrying capacity issues can refer to the cited sources for more information.

Comment 15: We recommend including additional citations on red tide effects on manatees: Walsh *et al.* 2015: Sublethal red tide toxin exposure in free-ranging manatees (*Trichechus manatus*) affects the immune system through reduced lymphocyte proliferation responses, inflammation, and oxidative stress, and Flewelling *et al.* 2005: Red tides and marine mammal mortalities.

Response: We added citations to both papers in the final revised SAR.

Comment 16: From information reported by the St. Johns River Water Management District, and based on 2021 aerial survey seagrass data, the Indian River Lagoon has lost approximately 75 percent of seagrass acreage since 2009 with 40 percent loss of seagrass acreage from 2019 through 2021.

Response: We did not revise the information contained in the draft SAR because the commenter did not provide a supporting citation. Although the information included in the SAR is not the same as the above comment, the source we cited is recent (2022) and from the same agency referred to in the comment, and both descriptions support the same finding: that significant seagrass losses have occurred in this area.

References

In accordance with section 117(b)(1) of the MMPA, we include in this notice a list of the sources of information or published reports upon which we based the revised SAR. The Service consulted technical reports, conference proceedings, refereed journal publications, and scientific studies prepared or issued by Federal agencies, nongovernmental organizations, and individuals with expertise in the fields of marine mammal biology and ecology, population dynamics, modeling, and commercial fishing practices. These agencies and organizations include the Service, the U.S. Geological Survey, the National Oceanic and Atmospheric Administration, the Puerto Rico Department of Natural and Environmental Resources, the Georgia Department of Natural Resources, the

Florida Fish and Wildlife Conservation Commission, Hubbs Sea World Research Institute, the Gulf and Caribbean Fisheries Institute, the Caribbean Stranding Network, and Mote Marine Laboratory. In addition, the Service consulted publications such as the Journal of Wildlife Management, Marine Mammal Science, Marine Pollution Bulletin, Marine Technology Society Journal, Wildlife Monographs, Gulf and Caribbean Research, Journal of Zoo and Wildlife Medicine, Molecular Ecology, and Molecular Ecology Notes, as well as other refereed journal literature, technical reports, and data sources in the development of these SARs. A complete list of citations to the scientific literature relied on for each of these SARs is available on the Federal eRulemaking portal (*https://www.regulations.gov*) under Docket No. FWS–R4–ES–2022–0031 or upon request from the Florida Ecological Services Field Office or Caribbean Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Authority

The authority for this action is the Marine Mammal Protection Act of 1972, as amended (16 U.S.C. 1361 *et seq.*).

Signing Authority

Martha Williams, Director of the U.S. Fish and Wildlife Service, approved this action on March 24, 2023, for publication. On March 24, 2023, Martha Williams authorized the undersigned to sign the document electronically and submit it to the Office of the Federal Register for publication as an official document of the U.S. Fish and Wildlife Service.

Madonna Baucum,

Chief, Policy and Regulations Branch, U.S. Fish and Wildlife Service.

[FR Doc. 2023–06505 Filed 3–28–23; 8:45 am]

BILLING CODE 4333–15–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[Docket No. FWS–R4–ES–2023–0039; FXES11130400000–223–FF04EF4000]

Receipt of Incidental Take Permit Application and Proposed Habitat Conservation Plan for the Sand Skink and Blue-Tailed Mole Skink; Polk County, FL; Categorical Exclusion

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of availability; request for comments.

SUMMARY: We, the Fish and Wildlife Service (Service), announce receipt of an application from JDT of Central Florida (applicant) for an incidental take permit (ITP) under the Endangered Species Act. The applicant requests the ITP to take the federally threatened sand skink (*Plestiodon reynoldsi*) and the federally threatened blue-tailed mole-skink (*Eumeces egregius lividus*) incidental to the construction of a residential development in Polk County, Florida. We request public comment on the application, which includes the applicant's proposed habitat conservation plan (HCP), and on the Service's preliminary determination that the proposed permitting action may be eligible for a categorical exclusion pursuant to the Council on Environmental Quality's National Environmental Policy Act (NEPA) regulations, the Department of the Interior's (DOI) NEPA regulations, and the DOI Departmental Manual. To make this preliminary determination, we prepared a draft environmental action statement and low-effect screening form, both of which are also available for public review. We invite comment from the public and local, State, Tribal, and Federal agencies.

DATES: We must receive your written comments on or before April 28, 2023.

ADDRESSES:

Obtaining Documents: You may obtain copies of the documents online in Docket No. FWS–R4–ES–2023–0039; at *https://www.regulations.gov.*

Submitting Comments: If you wish to submit comments on any of the documents, you may do so in writing by one of the following methods:

- *Online: https://www.regulations.gov.* Follow the instructions for submitting comments on Docket No. FWS–R4–ES–2023–0039;
- *U.S. Mail:* Public Comments Processing, Attn: Docket No. FWS–R4–ES–2023–0039; U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

FOR FURTHER INFORMATION CONTACT: Alfredo Begazo, by U.S. mail (see **ADDRESSES**), by telephone at 772–469–4234 or via email at *afredo_begazo@fws.gov.* Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. 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: We, the Fish and Wildlife Service (Service), announce receipt of an application from JDT of Central Florida (applicant) for an incidental take permit (ITP) under the Endangered Species Act of 1973, as amended (ESA; 16 U.S.C. 1531 *et seq.*). The applicant requests the ITP to take the federally listed sand skink (*Plestiodon reynoldsi*) and blue-tailed mole-skink (*Eumeces egregius lividus*) (skinks) incidental to the construction and operation of a residential development in Polk County, Florida. We request public comment on the application, which includes the applicant's habitat conservation plan (HCP), and on the Service's preliminary determination that this proposed ITP qualifies as ''low effect,'' and may qualify for a categorical exclusion pursuant to the Council on Environmental Quality's National Environmental Policy Act (NEPA) regulations (40 CFR 1501.4), the Department of the Interior's (DOI) NEPA regulations (43 CFR 46), and the DOI's Departmental Manual (516 DM 8.5(C)(2)). To make this preliminary determination, we prepared a draft environmental action statement and low-effect screening form, both of which are also available for public review.

Proposed Project

The applicant requests a 5-year ITP to take two skink species via the conversion of approximately 1.53 acres (ac) of occupied nesting, foraging, and sheltering skink habitat incidental to the construction and operation of a residential development on a 14.34–ac parcel in Section 13, Township 26 South, Range 27 East, Polk County, Florida. The applicant proposes to mitigate for take of the skinks by purchasing credits equivalent to 3.06 ac of skink-occupied habitat from a Service-approved conservation bank. The Service would require the applicant to purchase the credits prior to engaging in any construction phase of the project.

Public Availability of Comments

Before including your address, phone number, email address, or other personal identifying information in your comment, be aware that your entire comment, including your personal identifying information, may be made available to the public. While you may request that we withhold your personal identifying information, we cannot guarantee that we will be able to do so.

Our Preliminary Determination

The Service has made a preliminary determination that the applicant's project—including the construction of multiple single-family residences, driveways, parking spaces, green areas,

stormwater pond, and associated infrastructure (*e.g.,* electric, water, and sewer lines)—would individually and cumulatively have a minor effect on the skinks and the environment. Therefore, we have preliminarily determined that the proposed ESA section 10(a)(1)(B) permit would be a ''low-effect'' ITP that individually or cumulatively would have a minor effect on the species and may qualify for application of a categorical exclusion pursuant to the Council on Environmental Quality's NEPA regulations, DOI's NEPA regulations, and the DOI Departmental Manual. A ''low-effect'' incidental take permit is one that would result in (1) minor or negligible effects on species covered in the HCP; (2) nonsignificant effects on the human environment; and (3) impacts that, when added together with the impacts of other past, present, and reasonable foreseeable actions, would not result in significant cumulative effects to the human environment.

Next Steps

The Service will evaluate the application and the comments to determine whether to issue the requested permit. We will also conduct an intra-Service consultation pursuant to section 7 of the ESA to evaluate the effects of the proposed take. After considering the preceding and other matters, we will determine whether the permit issuance criteria of section 10(a)(1)(B) of the ESA have been met. If met, the Service will issue ITP number PER 0068766 to JDT of Central Florida.

Authority

The Service provides this notice under section 10(c) of the ESA (16 U.S.C. 1531 *et seq.*) and its implementing regulations (50 CFR 17.32), and NEPA (42 U.S.C. 4321 *et seq.*) and its implementing regulations (40 CFR 1500–1508 and 43 CFR 46).

Robert L. Carey,

Manager, Division of Environmental Review, Florida Ecological Services Field Office.

[FR Doc. 2023–06494 Filed 3–28–23; 8:45 am]

BILLING CODE 4333–15–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLMT912000 L11600000.BN0000.MO#4500169350]

Call for Nominations to the Missouri Basin and Western Montana Resource Advisory Councils

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of call for nominations.

SUMMARY: The purpose of this notice is to request public nominations for the Bureau of Land Management's (BLM) Missouri Basin and Western Montana Resource Advisory Councils (RACs) to fill existing vacancies, as well as for member terms that are scheduled to expire. The RACs provide advice and recommendations to the BLM on land use planning and management of the National System of Public Lands within their geographic areas.

DATES: All nominations must be received no later than April 28, 2023.

ADDRESSES: Applications for the Missouri Basin RAC should be sent to Mark Jacobsen, BLM Eastern Montana/Dakotas District Office, 111 Garryowen Road, Miles City, MT 59301; (406) 233–2831; *mjacobse@blm.gov;* or Gina Baltrusch, BLM North Central Montana District Office, 1220 38th Street N, Great Falls, MT 59405; (406) 791–7778. Applications for the Western Montana RAC should be sent to David Abrams, BLM Butte Field Office, 106 North Parkmont, Butte, MT 59701; (406) 533–7617; *dabrams@blm.gov.*

FOR FURTHER INFORMATION CONTACT: Ann Boucher, BLM Montana/Dakotas State Office, 5001 Southgate Drive, Billings, MT 59101, (406) 896–5011, *aboucher@blm.gov.*

Individuals in the United States who are deaf, blind, 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: The Federal Land Policy and Management Act directs the Secretary of the Interior to involve the public in planning and issues related to the management of lands administered by the BLM through the establishment of 10- to 15-member citizen-based advisory councils that are managed in accordance with the Federal Advisory Committee Act (FACA). As required by FACA, RAC membership must be balanced, and representative of the various interests concerned with the management of the public lands. The rules governing RACs are found at 43 CFR subpart 1784 and include the following three membership categories:

Category One—Holders of Federal grazing permits or leases within the area for which the RAC is organized; represent interests associated with transportation or rights-of-way; represent developed outdoor recreation, off-highway vehicle users, or commercial recreation activities; represent the commercial timber industry; or represent energy and mineral development.

Category Two—Representatives of nationally or regionally recognized environmental organizations; dispersed recreational activities; archaeological and historical interests; or nationally or regionally recognized wild horse and burro interest groups.

Category Three—Hold State, county, or local elected office; are employed by a State agency responsible for the management of natural resources, land, or water; represent Indian Tribes within or adjacent to the area for which the RAC is organized; are employed as academicians in natural resource management or the natural sciences; or represent the affected public-at-large.

Individuals may nominate themselves or others. Missouri Basin RAC Nominees must be residents of the States of Montana, North Dakota, or South Dakota. Western Montana RAC Nominees must be residents of the State of Montana. The BLM will evaluate nominees based on their education, training, experience, and knowledge of the geographic area of the RAC. Nominees should demonstrate a commitment to collaborative resource decision-making.

The following must accompany all nominations:

- A completed RAC application, which can either be obtained through the nominee's BLM office or online at: *https://www.blm.gov/sites/blm.gov/files/1120-019_0.pdf;*
- Letters of reference from represented interests or organizations; and
- Any other information that addresses the nominee's qualifications.

Simultaneous with this notice, BLM Montana/Dakotas will issue a press release providing additional information for submitting nominations.

Before including any address, phone number, email address, or other personal identifying information in the application, nominees should be aware this information may be made publicly available at any time. While the nominee can ask to withhold the personal identifying information from public review, the BLM cannot guarantee that it will be able to do so.

(Authority: 43 CFR 1784.4–1)

Kimberly O. Prill,

Acting Montana/Dakotas State Director.

[FR Doc. 2023–06436 Filed 3–28–23; 8:45 am]

BILLING CODE 4331–20–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0035559; PPWOCRADN0–PCU00RP14.R50000]

Notice of Inventory Completion: Mississippi Department of Archives and History, Jackson, MS

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: In accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), the Mississippi Department of Archives and History (MDAH) 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 Desoto County, MS.

DATES: Repatriation of the human remains in this notice may occur on or after April 28, 2023.

ADDRESSES: Jessica Walzer, NAGPRA Coordinator, Mississippi Department of Archives and History, Museum Division, 222 North Street, P.O. Box 571, Jackson, MS 39205, telephone (601) 359–6851, email *jwalzer@mdah.ms.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 MDAH. 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 MDAH.

Description

Human remains representing, at minimum, two individuals were removed from Desoto County, MS. These human remains were removed from Cheatham (22DS514) and an unknown site whose location was given as ''River Bank at Walls, Mags lot 60.'' In 2015, the human remains were transferred to MDAH from the C.H. Nash Museum. No known individuals were identified. No associated funerary objects are present.

Human remains representing, at minimum, one individual were removed from Desoto County, MS. These human remains were removed from an unknown site identified by a label reading ''516/2x2, M12'' and possibly denoting the Irby site (22DS516). In 2015, the human remains were transferred to MDAH from the C.H. Nash Museum. 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: archeological, biological, and geographical.

Determinations

Pursuant to NAGPRA and its implementing regulations, and after consultation with the appropriate Indian Tribes and Native Hawaiian organizations, MDAH has determined that:

- The human remains described in this notice represent the physical remains of three individuals of Native American ancestry.
- 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 Alabama-Coushatta Tribe of Texas; Alabama-Quassarte Tribal Town; Coushatta Tribe of Louisiana; Eastern Band of Cherokee Indians; Jena Band of Choctaw Indians; Miami Tribe of Oklahoma; Mississippi Band of Choctaw Indians; Quapaw Nation; The Chickasaw Nation; The Choctaw Nation of Oklahoma; The Muscogee (Creek) Nation; The Osage Nation; and the Tunica-Biloxi Indian Tribe.

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 April 28, 2023. If competing requests for repatriation are received, MDAH 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. MDAH 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, 10.10, and 10.14.

Dated: March 22, 2023.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2023–06475 Filed 3–28–23; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0035567; PPWOCRADN0–PCU00RP14.R50000]

Notice of Inventory Completion: Tennessee Valley Authority, Knoxville, TN

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: In accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), the Tennessee Valley Authority (TVA) 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 the states of Alabama, Kentucky, and Tennessee.

DATES: Repatriation of the human remains and associated funerary objects in this notice may occur on or after April 28, 2023.

ADDRESSES: Meg Cook, Tennessee Valley Authority, 400 West Summit Hill Drive, WT11C, Knoxville, TN 37902–1401, telephone (865) 253–1265, email *tvatribal@tva.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 TVA. 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 TVA.

Description

The human remains and associated funerary objects described in this notice are under the control of TVA, and in the physical custody of TVA and its partner repositories, which include but are not limited to the University of Alabama, the University of Kentucky, Mississippi State University, Southern Illinois University, and the University of Tennessee.

Human remains representing, at minimum, 722 individuals were removed as a result of TVA action in the state of Alabama from Colbert, Franklin, Jackson, Lauderdale, Lawrence, Limestone, Madison, Marshall, and Morgan Counties. The 522 lots of associated funerary objects include lithics, ceramics, personal adornments (hair pins, beads), copper, canine burials, and shell.

Human remains representing, at minimum, eight individuals were removed as a result of TVA action in the state of Kentucky from Livingston, Lyon, Marshall, McCracken, and Trigg Counties. The two lots of associated funerary objects includes faunal remains.

Human remains representing, at minimum, 3,676 individuals were removed as a result of TVA action in the eastern half of Tennessee from Anderson, Bedford, Bledsoe, Blount, Bradley, Campbell, Cannon, Carter, Claiborne, Clay, Cocke, Coffee, Cumberland, De Kalb, Fentress, Franklin, Grainger, Greene, Grundy, Hamblen, Hamilton, Hancock, Hawkins, Jackson, Jefferson, Johnson, Knox, Lincoln, Loudon, Macon, Marion, Marshall, McMinn, Meigs, Monroe, Moore, Morgan, Overton, Pickett, Polk, Putnam, Rhea, Roane, Rutherford, Scott, Sequatchie, Sevier, Smith, Sullivan, Trousdale, Unicoi, Union, Van Buren, Warren, Washington, White, and Wilson Counties. The 739 lots of associated funerary objects include lithics, ceramics, minerals, botanical remains, shell, and personal adornments (beads and gorgets).

Human remains representing, at minimum, 465 individuals were removed as a result of TVA action in the western half of Tennessee from Benton, Carroll, Cheatham, Chester, Crockett, Davidson, Decatur, Dickson, Dyer, Fayette, Gibson, Giles, Hardeman, Hardin, Haywood, Henderson, Henry, Hickman, Houston, Humphreys, Lake, Lauderdale, Lawrence, Lewis, Madison, Maury, McNairy, Montgomery, Obion, Perry, Robertson, Shelby, Stewart, Sumner, Tipton, Wayne, Weakley, and Williamson Counties. The 126 lots of associated funerary objects include canine remains, lithics, ceramics, and bone tools.

Cultural Affiliation

Cultural affiliation is defined by state or by region in the determinations section of this notice. 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. Geographical and other relevant information were used to reasonably trace the relationship.

Determinations

Pursuant to NAGPRA and its implementing regulations, and after consultation with the appropriate Indian Tribes and Native Hawaiian organizations, Tennessee Valley Authority has determined that:

- The human remains described in this notice represent the physical remains of 4,871 individuals of Native American ancestry, at minimum.
- The 1,389 lots of 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 as removed from the state of Alabama and the Absentee Shawnee Tribe of Indians of Oklahoma; Alabama-Coushatta Tribe of Texas; Cherokee Nation; Coushatta Tribe of Louisiana; Eastern Band of Cherokee Indians; Eastern Shawnee Tribe of Oklahoma; Jena Band of Choctaw Indians; Kialegee Tribal Town; Poarch Band of Creek Indians; Shawnee Tribe; The Chickasaw Nation; The Choctaw Nation of Oklahoma; The Muscogee (Creek) Nation; The Seminole Nation of Oklahoma; Thlopthlocco Tribal Town; and the United Keetoowah Band of Cherokee Indians in Oklahoma.
- 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 as removed from the state of Kentucky and the Absentee Shawnee Tribe of Indians of Oklahoma; Cherokee Nation; Delaware Nation, Oklahoma; Eastern Band of Cherokee Indians; Eastern Shawnee Tribe of Oklahoma; Peoria Tribe of Indians of Oklahoma; Quapaw Nation; Shawnee Tribe; The Chickasaw Nation; The Osage Nation; and the United Keetoowah Band of Cherokee Indians in Oklahoma.
- 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 as removed from the eastern half of Tennessee and the Absentee Shawnee Tribe of Indians of Oklahoma; Alabama-Coushatta Tribe of Texas; Cherokee Nation; Coushatta Tribe of Louisiana; Eastern Band of Cherokee Indians; Eastern Shawnee Tribe of Oklahoma; Jena Band of Choctaw Indians; Kialegee Tribal Town; Shawnee Tribe; The Chickasaw Nation; The Muscogee (Creek) Nation; The Seminole Nation of Oklahoma; Thlopthlocco Tribal Town; and the United Keetoowah Band of Cherokee Indians in Oklahoma.
- 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 as removed from the western half of Tennessee and the Absentee Shawnee Tribe of Indians of Oklahoma; Alabama-Coushatta Tribe of Texas; Cherokee Nation; Coushatta Tribe of Louisiana; Eastern Band of Cherokee Indians; Eastern Shawnee Tribe of Oklahoma; Jena Band of Choctaw Indians; Kialegee Tribal Town; Mississippi Band of Choctaw Indians; Quapaw Nation; Shawnee Tribe; The Chickasaw Nation; The Choctaw Nation of Oklahoma; The Muscogee (Creek) Nation; The Osage Nation; Thlopthlocco Tribal Town; and the United Keetoowah Band of Cherokee Indians in Oklahoma.

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 April 28, 2023. If competing requests for repatriation are received, TVA 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. TVA is responsible for sending a copy of this notice to the Indian Tribes and Native Hawaiian organizations 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: March 22, 2023.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2023–06479 Filed 3–28–23; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0035558; PPWOCRADN0–PCU00RP14.R50000]

Notice of Inventory Completion: Mississippi Department of Archives and History, Jackson, MS

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: In accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), the Mississippi Department of Archives and History (MDAH) 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 Clay, Prentiss, Yalobusha, and Quitman Counties, MS.

DATES: Repatriation of the human remains and associated funerary objects in this notice may occur on or after April 28, 2023.

ADDRESSES: Jessica Walzer, NAGPRA Coordinator, Mississippi Department of Archives and History, Museum Division, 222 North Street, P.O. Box 571, Jackson, MS 39205, telephone (601) 359–6851, email *jwalzer@mdah.ms.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 MDAH. 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 MDAH.

Description

Human remains representing, at minimum, six individuals were removed from Clay County, MS. In 2014, human remains were excavated from Dexter Site I (22CL000) during a survey by Mississippi Fish and Wildlife survey and in 2016, they were transferred to MDAH. In 1979, human remains were removed from Chuquatonchee #2 (22CL598) during a survey by MDAH. No known individuals were identified. The 11 associated funerary objects are two lots of lithics, two lots of faunal remains, two lots of shell, one lot of ceramics, one lot of petrified wood, one lot of worked bones, one lot of metal, and one lot of bricks.

Human remains representing, at minimum, two individuals were removed from Prentiss County, MS. In 1970, the human remains were from Shell (22PS502) during a survey by MDAH. No known individuals were identified. The two associated funerary objects are one lot of lithics and one lot of ceramics.

Human remains representing, at minimum, one individual were removed from Yalobusha County, MS. At an unknown date, C. Spearman removed these human remains from an unknown site whose location was given as ''Yalobusha and Skuna Rivers.'' No known individual was identified. No associated funerary objects are present.

One associated funerary object was removed from the Blue Lake (22QU531) site in Quitman County, MS. Following the transfer of control of human remains and associated funerary objects listed in a Notice of Inventory Completion published in the **Federal Register** on July 14, 2022, an additional funerary object was found. The associated funerary object is one lot of worked bones.

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: archeological, biological, and geographical.

Determinations

Pursuant to NAGPRA and its implementing regulations, and after consultation with the appropriate Indian Tribes and Native Hawaiian organizations, MDAH has determined that:

- The human remains described in this notice represent the physical remains of nine individuals of Native American ancestry.
- The 14 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 Alabama-Coushatta Tribe of Texas; Alabama-Quassarte Tribal Town; Coushatta Tribe of Louisiana; Eastern Band of Cherokee Indians; Jena Band of Choctaw Indians; Miami Tribe of Oklahoma; Mississippi Band of Choctaw Indians; Quapaw Nation; The Chickasaw Nation; The Choctaw Nation of Oklahoma; The Muscogee (Creek) Nation; The Osage Nation; and the Tunica-Biloxi Indian Tribe.

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 April 28, 2023. If competing requests for repatriation are received, MDAH 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. MDAH 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, 10.10, and 10.14.

Dated: March 22, 2023.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2023–06474 Filed 3–28–23; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0035560; PPWOCRADN0–PCU00RP14.R50000]

Notice of Inventory Completion: Virginia Commonwealth University, Department of Forensic Science and Anthropology Program, Richmond, VA

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: In accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), Virginia Commonwealth University, Department of Forensic Science and Anthropology Program, has completed an inventory of human remains, in consultation with the appropriate Indian Tribes, and has determined that there is no cultural affiliation between the human remains and any Indian Tribe. The human remains were removed from the City of Richmond, VA.

DATES: Disposition of the human remains in this notice may occur on or after April 28, 2023.

ADDRESSES: Thomas Briggs, Assistant Vice President for Safety and Risk Management, Virginia Commonwealth University, 700 West Grace Street, Suite 3100, P.O. Box 842501, Richmond, VA 23284–2501, telephone (804) 827–2440, email *tbriggs4@vcu.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 Virginia Commonwealth University. 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 Virginia Commonwealth University.

Description

Human remains representing, at minimum, nine individuals were removed from Richmond, VA. In February of 1975, as part of the installation of Interstate 95 through the City of Richmond, archeologists from Virginia Commonwealth University's Department of Archaeology excavated two burial features (Burial 1 and Burial 2). Following the excavation, these human remains were transported to Virginia Commonwealth University. In January of 2019, a review of the collection inventory identified the excavated human remains and archeological materials. The University's Department of Forensic Science has determined that these nine individuals are Native American ranging in age from 34–38 weeks to adult. Based on pottery sherd analysis, these human remains are dated to the Late Woodland period (circa A.D. 900–1600).

Aboriginal Land

The human remains in this notice were removed from a known geographic location. This location is the aboriginal land of one or more Indian Tribes. The following information was used to identify the aboriginal land: a treaty

Determinations

Pursuant to NAGPRA and its implementing regulations, and after consultation with the appropriate Indian Tribes, Virginia Commonwealth University, Department of Forensic Science and Anthropology Program, has determined that:

- The human remains described in this notice represent the physical remains of nine individuals of Native American ancestry.
- No relationship of shared group identity can be reasonably traced between the human remains and any Indian Tribe.
- The human remains described in this notice were removed from the aboriginal land of the Chickahominy Indian Tribe; Pamunkey Indian Tribe; and the Upper Mattaponi Tribe.

Requests for Disposition

Written requests for disposition of the human remains 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 described in this notice to a requestor may occur on or after April 28, 2023. If competing requests for disposition are received, Virginia Commonwealth University must determine the most appropriate requestor prior to disposition. Requests for joint disposition of the human remains are considered a single request and not competing requests. Virginia Commonwealth University 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: March 22, 2023.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2023–06476 Filed 3–28–23; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–BSD–CONC–NPS0035010; 222P103601, PPMVSCS1Y.Y00000, PPWOBSADC0 (222); OMB Control Number 1024–0268]

Agency Information Collection Activities; Commercial Use Authorizations

AGENCY: National Park Service, Interior.

ACTION: Notice of information collection; request for comment.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, we, the National Park Service (NPS) are proposing to renew an information collection.

DATES: Interested persons are invited to submit comments on or before April 28, 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 Review—Open for Public Comments'' or by using the search function. Please provide a copy of your comments NPS Information Collection Clearance Officer (ADIR–ICCO), 12201 Sunrise Valley Drive, (MS–242) Reston, VA 20191 (mail); or to *phadrea_ponds@nps.gov* (email). Please reference OMB Control Number 1024–0268 in the subject line of your comments.

FOR FURTHER INFORMATION CONTACT: To request additional information about

this ICR, contact Samantha Towery, National Park Service, 12795 West Alameda Parkway, Lakewood, CO 80228; or by email at *Samantha_Towery@nps.gov;* or by telephone at 303–987–6908. Please reference OMB Control Number 1024–0268 in the subject line of your comments. 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 (PRA, 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.

A **Federal Register** notice with a 60-day public comment period soliciting comments on this collection of information was published on September 12, 2022 (87 FR 55839). No comments were received.

As part of our continuing effort to reduce paperwork and respondent burdens, we are again soliciting comments from the public and other Federal agencies on the proposed ICR that is described below. We are especially interested in public comment addressing the following:

(1) Whether or not the collection of information is necessary for the proper performance of the functions of the agency, including whether or not the information will have practical utility;

(2) The accuracy of our estimate of the burden for this collection of information, including the validity of the methodology and assumptions used;

(3) Ways to enhance the quality, utility, and clarity of the information to be collected; and

(4) How might the agency 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 response.

Comments that you submit in response to this notice are a matter of public record. 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: Section 418, Public Law 105–391 (54 U.S.C. 101925) gives the Secretary of the Interior the authority to authorize a private person, corporation, or other entity to provide services to visitors in units of the National Park System through a Commercial Use Authorization (CUA). The NPS authorizes commercial operations that originate and operate entirely within a park; commercial operations that provide services originating and terminating outside of the park boundaries; noncommercial organized children's camps, outdoor clubs, and nonprofit institutions; and other uses as the Secretary determines appropriate. The NPS Commercial Use Authorization Program uses forms 10–550, 10–550s, 10–660, and 10–660A to:

- Manage the program and operations.
- Determine the qualifications and abilities of the commercial operators to provide high-quality, safe, and enjoyable experiences for park visitors.
- Determine the impact on the park's natural and cultural resources.
- Manage the use and impact of multiple operators.

The information is used to evaluate requests and determine the suitability of the applicants to provide an appropriate service safely and effectively to the visiting public.

Title of Collection: Commercial Use Authorizations.

OMB Control Number: 1024–0268.

Form Number: NPS Forms 10–550, 10–550s, 10–660, and 10–660A.

Type of Review: Extension of a currently approved collection.

Respondents/Affected Public: Individuals or small businesses that wish to provide a commercial service to visitors in areas of the National Park System.

Total Estimated Number of Annual Responses: 16,050.

Estimated Completion Time per Response: Varies based on activity (Form:10–550 (2.5 hours), 10–550s (1.5 hours), 10–660 (1.25 hours), and 10–660A (45 minutes)).

Total Estimated Number of Annual Burden Hours: 23,325.

Respondent's Obligation: Required to obtain or retain a benefit.

Frequency of Collection: On occasion.

Total Estimated Annual Nonhour Burden Cost: !The Formula Not In Table.

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.*).

Phadrea Ponds,

Information Collection Clearance Officer, National Park Service.

[FR Doc. 2023–06540 Filed 3–28–23; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0035564; PPWOCRADN0–PCU00RP14.R50000]

Notice of Inventory Completion: New Jersey State Museum, Trenton, NJ

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: In accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), the New Jersey State Museum 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 Monmouth County, NJ.

DATES: Repatriation of the human remains in this notice may occur on or after April 28, 2023.

ADDRESSES: Dr. Gregory D. Lattanzi, New Jersey State Museum, 205 West State Street, Trenton, NJ 08625, telephone (609) 984–9327, email *gregory.lattanzi@sos.nj.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 New Jersey 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 New Jersey State Museum.

Description

Human remains representing, at minimum, one individual were removed from Monmouth County, NJ. In May of 2020, the Executive Director of the New Jersey State Museum received a package mailed from Tennessee. Inside the package were a letter and a partial cranium. At the time, the State Museum was shut down because of Covid–19, and the package remained secure in the director's office. Close to two years later, when the State Museum reopened, the Executive Director presented Dr. Gregory Lattanzi with both the ancestral remains and the accompanying letter. These ancestral remains had been discovered and identified in a residential homeowner's backyard in 1964, during construction in the Town of Keansburg, in Monmouth County, NJ. After the homeowner contacted the Geology Department at Rutgers University (the Anthropology Department had not yet been established), Dr. Bennett Smith and students from Rutgers excavated the ancestral remains. One of the students kept the partial cranium until May of 2020, when he mailed it to the New Jersey State Museum.

Further communication with the individual who had mailed the letter and the ancestral remains revealed that, initially, a complete skeleton had been uncovered along with associated funerary objects and that this collection had been brought back to Rutgers University but that, once back at the University, almost all the ancestral remains were discarded except for the partial cranium now located in the New Jersey State Museum. 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: archeological and historical.

Determinations

Pursuant to NAGPRA and its implementing regulations, and after consultation with the appropriate Indian Tribes and Native Hawaiian organizations, the New Jersey State Museum 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 Delaware Nation, Oklahoma; Delaware Tribe of Indians; and the Stockbridge Munsee Community, Wisconsin.

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 April 28, 2023. If competing requests for repatriation are received, the New Jersey State Museum 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 New Jersey State Museum 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, 10.10, and 10.14.

Dated: March 22, 2023.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2023–06477 Filed 3–28–23; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–NERO–GATE–35247; PPNEGATEB0, PPMVSCS1Z.Y00000]

Gateway National Recreation Area Fort Hancock 21st Century Advisory Committee Notice of Public Meeting

AGENCY: National Park Service, Interior.

ACTION: Meeting notice.

SUMMARY: In accordance with the Federal Advisory Committee Act of 1972, the National Park Service (NPS) is hereby giving notice that the Gateway National Recreation Area Fort Hancock 21st Century Advisory Committee (Committee) will meet as indicated below.

DATES: The virtual meeting will take place on Thursday, April 27, 2023. The meeting will begin at 9:00 a.m. until 2:00 p.m., with a public comment period at 11:30 a.m. to 12:00 p.m. (EASTERN), with advance registration required. Individuals that wish to participate must contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section no later than April 25, 2023, to receive instructions for accessing the meeting.

FOR FURTHER INFORMATION CONTACT: This will be a virtual meeting. Anyone interested in attending should contact Daphne Yun, Acting Public Affairs Officer, Gateway National Recreation Area, 210 New York Avenue, Staten Island, New York 10305, by telephone (718) 815–3651, or by email *daphne_yun@nps.gov.* Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

SUPPLEMENTARY INFORMATION: The Committee was established on April 18, 2012, by authority of the Secretary of the Interior (Secretary) under 54 U.S.C. 100906 and is regulated by the Federal Advisory Committee Act. The Committee provides advice to the Secretary, through the Director of the NPS, on matters relating to the Fort Hancock Historic District of Gateway National Recreation Area. All meetings are open to the public.

Purpose of the Meeting: The Gateway National Recreation Area will discuss the leasing updates, working group updates, and park updates. The final agenda will be posted on the Committee's website at *https://www.forthancock21.org.* The website includes meeting minutes from all prior meetings.

Interested persons may present, either orally or through written comments, information for the Committee to consider during the public meeting. Written comments will be accepted prior to, during, or after the meeting. Members of the public may submit written comments by mailing them to

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

Due to time constraints during the meeting, the Committee is not able to read written public comments submitted into the record. Individuals or groups requesting to make oral comments at the public Committee meeting will be limited to no more than three minutes per speaker. All comments will be made part of the public record and will be electronically distributed to all Committee members. Detailed minutes of the meeting will be available for public inspection within 90 days of the meeting.

Meeting Accessibility/Special Accommodations: The meeting is open to the public. Please make requests in advance for sign language interpreter services, assistive listening devices, or other reasonable accommodations. We ask that you contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section of this notice at least seven (7) business days prior to the meeting to give the Department of the Interior sufficient time to process your request. All reasonable accommodation requests are managed on a case-by-case basis.

Public Disclosure of Comments: Before including your address, phone number, email address, or other personal identifying information in your written comments, you should be aware that your entire comment including your personal identifying information will be publicly available. 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.

Authority: 5 U.S.C. 10.

Alma Ripps,

Chief, Office of Policy.

[FR Doc. 2023–06443 Filed 3–28–23; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–NERO–CEBE–35377; PPNECEBE00, PPMPSPD1Z.Y00000]

Request for Nominations for the Cedar Creek and Belle Grove National Historical Park Advisory Commission

AGENCY: National Park Service, Interior.

ACTION: Request for nominations.

SUMMARY: The National Park Service (NPS), U.S. Department of the Interior, is requesting nominations for qualified persons to serve as members on the Cedar Creek and Belle Grove National Historical Park Advisory Commission (Commission).

DATES: Written nominations must be received by April 28, 2023.

ADDRESSES: Nominations or requests for further information should be sent to Karen Beck-Herzog, Site Manager, Cedar Creek and Belle Grove National Historical Park, P.O. Box 700, Middletown, Virginia 22645, or via email *karen_beck-herzog@nps.gov.*

FOR FURTHER INFORMATION CONTACT: Karen Beck-Herzog, via telephone (540) 868–0938.

SUPPLEMENTARY INFORMATION: The Commission was established in accordance with the Cedar Creek and Belle Grove National Historical Park Act of 2002 (16 U.S.C. 410iii–7). The Commission was designated by Congress to provide advice to the Secretary of the Interior on the preparation and implementation of the park's general management plan and in the identification of sites of significance outside the park boundary.

The Commission consists of 15 members appointed by the Secretary, as follows: (a) 1 representative from the Commonwealth of Virginia; (b) 1 representative each from the local governments of Strasburg, Middletown, Frederick County, Shenandoah County, and Warren County; (c) 2 representatives of private landowners within the Park; (d) 1 representative from a citizen interest group; (e) 1 representative from the Cedar Creek Battlefield Foundation; (f) 1 representative from the Belle Grove, Incorporated; (g) 1 representative from the National Trust for Historic Preservation; (h) 1 representative from the Shenandoah Valley Battlefields Foundation; (i) 1 ex-officio representative from the National Park Service; and (j) 1 ex-officio representative from the United States Forest Service. Alternate members may be appointed to the Commission.

We are currently seeking primary and alternate members to represent the Commonwealth of Virginia, the Shenandoah Valley Battlefields Foundation, the local governments of Strasburg, Middletown, Shenandoah County, and Warren County, and private landowners within the Park.

Each member shall be appointed for a term of three years and may be reappointed for not more than two successive terms. A member may serve after the expiration of that member's term until a successor has been appointed. The Chairperson of the Commission shall be elected by the members to serve a term of one-year renewable for one additional year.

Nominations should be typed and should include a resume providing an adequate description of the nominee's qualifications, including information that would enable the Department of the Interior to make an informed decision regarding meeting the membership requirements of the Commission and permit the Department to contact a potential member.

Members of the Commission serve without compensation. However, while away from their homes or regular places of business in the performance of services for the Commission as approved by the NPS, members may be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in Government service are allowed such expenses under 5 U.S.C. 5703.

(Authority: 5 U.S.C. 10)

Alma Ripps,

Chief, Office of Policy.

[FR Doc. 2023–06442 Filed 3–28–23; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0035568; PPWOCRADN0–PCU00RP14.R50000]

Notice of Intent To Repatriate Cultural Items: Bryn Mawr College, Bryn Mawr, PA

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: In accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), Bryn Mawr College intends to repatriate certain cultural items that meet the definition of 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 Wayne County, MI.

DATES: Repatriation of the cultural items in this notice may occur on or after April 28, 2023.

ADDRESSES: Marianne Weldon, Bryn Mawr College, 101 N Merion Avenue, Bryn Mawr, PA 19010, telephone (610) 526–5022, email *mweldon@brynmawr.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 Bryn Mawr College. 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 Bryn Mawr College.

Description

Two cultural items were removed from Wayne County, MI. In 1882, William Sansom Vaux bequeathed a collection to the Academy of Natural Sciences (ANS), and ANS accessioned them on June 27, 1912. In 1961, ANS loaned approximately 3,000 items to Bryn Mawr College, including the two objects listed in this notice. In 1997, the ANS board voted to transfer control of the items to Bryn Mawr College, and in 1998, it executed the paperwork. The two objects of cultural patrimony are two effigy pipes (70.45.5; 70.45.6).

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: geographical and expert opinion.

Determinations

Pursuant to NAGPRA and its implementing regulations, and after consultation with the appropriate Indian Tribes and Native Hawaiian organizations, Bryn Mawr College has determined that:

- The two cultural items described above 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 Nottawaseppi Huron Band of the Potawatomi, Michigan.

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 April 28, 2023. If competing requests for repatriation are received, Bryn Mawr College 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. Bryn Mawr College 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: March 22, 2023.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2023–06480 Filed 3–28–23; 8:45 am]

BILLING CODE 4312–52–P

DEPARTMENT OF THE INTERIOR

National Park Service

[NPS–WASO–NAGPRA–NPS0035565; PPWOCRADN0–PCU00RP14.R50000]

Notice of Inventory Completion: Schiele Museum of Natural History, Gastonia, NC

AGENCY: National Park Service, Interior.

ACTION: Notice.

SUMMARY: In accordance with the Native American Graves Protection and Repatriation Act (NAGPRA), the Schiele Museum of Natural History (SMNH) 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 Gaston County, NC.

DATES: Repatriation of the human remains in this notice may occur on or after April 28, 2023.

ADDRESSES: Carrie Duran, Schiele Museum of Natural History, 1500 E Garrison Blvd., Gastonia, NC 28054, telephone (704) 869–1009, email *carrie.duran@gastonianc.com.*

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 SMNH. 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 SMNH.

Description

Human remains representing, at minimum, three individuals were removed from Gaston County, NC. In 1986, Dr. Janet E. Levy and Dr. A. Lee Novick excavated human remains belonging to a female, 35–50 years old, from site 31GS30 (also known as the Lafar Site). In 1985, Robert A. Pace excavated human remains belonging to a male, 45–50 years old, from site 31GS55 (also known as the Penegar Site). In 1983, David G. Moore excavated human remains belonging to a female, 35–39 years old, from site 31GS55. The human remains of all three individuals were excavated by the Schiele Museum under the direction of Dr. J. Alan May and with approval of the North Carolina Commission on Indian Affairs. No known individuals were 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: anthropological, archeological, biological, 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, SMNH has determined that:

- The human remains described in this notice represent the physical remains of three individuals 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 Catawba Indian Nation.

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 April 28, 2023. If competing requests for repatriation are received, SMNH 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. SMNH 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: March 22, 2023.

Melanie O'Brien,

Manager, National NAGPRA Program.

[FR Doc. 2023–06478 Filed 3–28–23; 8:45 am]

BILLING CODE 4312–52–P

INTERNATIONAL TRADE COMMISSION

[Investigation Nos. 731–TA–313–314, 317, and 379 (Fifth Review)]

Brass Sheet and Strip From France, Germany, Italy, and Japan

Determinations

On the basis of the record [1] developed in the subject five-year reviews, the United States International Trade Commission (''Commission'') determines, pursuant to the Tariff Act of 1930 (''the Act''), that revocation of the antidumping duty orders on brass sheet and strip from France, Germany, Italy, and Japan would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.

Background

The Commission instituted these reviews on September 1, 2022 (87 FR 53785) and determined on December 6, 2022 that it would conduct expedited reviews (88 FR 10380).

The Commission made these determinations pursuant to section 751(c) of the Act (19 U.S.C. 1675(c)). It completed and filed its determinations in these reviews on March 24, 2023. The views of the Commission are contained in USITC Publication 5414 (March 2023), entitled *Brass Sheet and Strip from France, Germany, Italy, and Japan: Investigation Nos. 731–TA–313–314, 317, and 379 (Fifth Review).*

By order of the Commission.

Issued: March 24, 2023.

Lisa Barton,

Secretary to the Commission.

[FR Doc. 2023–06535 Filed 3–28–23; 8:45 am]

BILLING CODE 7020–02–P

[1] The record is defined in § 207.2(f) of the Commission's Rules of Practice and Procedure (19 CFR 207.2(f)).

INTERNATIONAL TRADE COMMISSION

[Investigation No. 337–TA–1311]

Certain Centrifuge Utility Platform and Falling Film Evaporator Systems and Components Thereof; Commission Decision Terminating One Respondent Based on Settlement; Issuing an Exclusion Order and Cease and Desist Orders; Terminating the Investigation

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission (''Commission'') has determined to terminate one of the seven defaulting respondents from the investigation on the basis of settlement. The Commission has also determined to issue a limited exclusion order (''LEO'') barring entry of certain centrifuge utility platform and falling film evaporator systems and components thereof that are imported by or on behalf of the six remaining defaulting respondents. The Commission has further determined to issue cease and desist orders (''CDOs'') as to three of the six remaining defaulting respondents. The investigation is terminated.

FOR FURTHER INFORMATION CONTACT: Sidney A. Rosenzweig, Esq., Office of the General Counsel, U.S. International Trade Commission, 500 E Street SW, Washington, DC 20436, telephone (202) 708–2532. Copies of non-confidential documents filed in connection with this investigation may be viewed on the Commission's electronic docket (EDIS) at *https://edis.usitc.gov.* For help accessing EDIS, please email *EDIS3Help@usitc.gov.* General information concerning the Commission may also be obtained by accessing its internet server at *https://www.usitc.gov.* Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205–1810.

SUPPLEMENTARY INFORMATION: The Commission instituted this investigation on May 4, 2022. 87 FR 26372 (May 4, 2022). The complaint, as supplemented, alleged violations of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337, in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain centrifuge utility platform and falling film evaporator systems and components thereof by reason of infringement of claims 1, 10, and 14 of U.S. Patent No. 10,814,338 (''the '338 patent''); claims 1, 10, and 18 of U.S. Patent No. 11,014,098 (''the '098 patent''); and claims 1, 9, and 19 of U.S. Patent No. 10,899,728 (''the '728 patent''). *Id.* The complaint further alleged that a domestic industry exists. *Id.* The Commission's notice of investigation named fifteen respondents, including Ambiopharm, Inc. of Beech Island, South Carolina (''Ambiopharm''); RI Hemp Farms, LLC of West Greenwich, Rhode Island (''RI Hemp Farms''); Henan Lanphan Industry Co., Ltd. of Zhengzhou, China (''Henan Lanphan''); Toption Instrument Co., Ltd. of Xi'an, China (''Toption''); Ezhydro of Sacramento, California (''Ezhydro''); Shanghai Yuanhuai Industries Co., Ltd. of Shanghai City, China (''Shanghai Yuanhuai''); Zhangjiagang Chunk d/b/a Charme Trading Corp. of Suzhou Shi, China (''Charme''); Calpha Industries, Inc. of Laguna Hills, California (''Calpha''); Comerg, LLC of Phoenix, Arizona (''Comerg''); HX Labs, LLC of Albany, Oregon (''HX''); Idea Makers, LLC of Lake City, Utah (''Idea Makers''); Lab1st Scientific and Industrial Equipment, Inc. of Shanghai, China (''Lab1st''); Miracle Education Distributors, Inc. of Cathedral City, California (''Miracle''); Mountain Pure, LLC of Vineyeard, Utah (''Mountain Pure''); and Redford Management of Los Angeles, California (''Redford''). *Id.* at 26373. The Office of Unfair Import Investigations (''OUII'') is also participating in the investigation. *Id.*

On August 4, 2022, the Commission determined not to review an initial determination (Order No. 15) finding Ambiopharm and RI Hemp Farms in default. Order No. 15 (July 7, 2022), *unreviewed by* Comm'n Notice (Aug. 4, 2022). On August 4, 2022, the Commission determined not to review an initial determination (Order No. 21) finding Henan Lanphan and Toption in default. Order No. 21 (July 19, 2022), *unreviewed by* Comm'n Notice (Aug. 5, 2022). Also on August 4, 2022, the

Commission determined not to review an initial determination (Order No. 22) finding Ezhydro in default. Order No. 22 (July 20, 2022), *unreviewed by* Comm'n Notice (Aug. 5, 2022). On August 29, 2022, the Commission determined not to review an initial determination (Order No. 26) finding Shanghai Yuanhuai and Charme in default. Order No. 26 (July 29, 2022), *unreviewed by* Comm'n Notice (Aug. 29, 2022). All other respondents named in the notice of investigation have been terminated from the investigation. Respondents Mountain Pure, Rexford, Comerg and Miracle were terminated from the investigation based on complaint withdrawal. Order No. 7 (May 25, 2022), *unreviewed by* Comm'n Notice (June 21, 2022); Order No. 20 (July 19, 2022), *unreviewed by* Comm'n Notice (Aug. 4, 2022); Order No. 24 (July 25, 2022), *unreviewed by* Comm'n Notice (Aug. 4, 2022); Order No. 25 (July 28, 2022), *unreviewed by* Comm'n Notice (Aug. 29, 2022). Respondents HX, Calpha, Lab1st, and Idea Makers were terminated based on settlement. *See* Order No. 14 (July 5, 2022), *unreviewed by* Comm'n Notice (Aug. 2, 2022); Order No. 18 (July 15, 2022), *unreviewed by* Comm'n Notice (Aug. 4, 2022); Order No. 23 (July 25, 2022), *unreviewed by* Comm'n Notice (Aug. 4, 2022).

On September 1, 2022, complainant Apeks, LLC (''Apeks'') filed a ''Written Submission on Remedy, the Public Interest and Bonding.'' On September 20, 2022, Apeks filed a motion to terminate the investigation as to defaulting respondent Toption based on settlement. Apeks filed a corrected version of that motion thereafter on September 23, 2022. On the same day, OUII filed a response supporting Apeks' motion to terminate Toption from the investigation. Apeks' motion is currently pending before the Commission.

On September 30, 2022, the Commission requested written submissions from the parties to the investigation, interested government agencies, and any other interested parties on the issues of remedy, the public interest, and bonding. Notice, 87 FR 60414 (Oct. 5, 2022). On October 14, 2022, Apeks and OUII each filed an opening submission on these issues.[1] On October 21, 2022, OUII filed a reply to Apeks' opening submission.[2] No other submissions were received.

Having examined the record of the investigation, including Apeks' corrected motion to terminate the investigation as to Toption because of settlement, and the response thereto, the Commission has determined to grant the motion to terminate the investigation as to Toption on the basis of settlement. Accordingly, for the purpose of determining remedy, the public interest, and bonding, six defaulting respondents remain: Ambiopharm, RI Hemp Farms, Henan Lanphan, Ezhydro, Shanghai Yuanhuai, and Charme (collectively, the ''Defaulting Respondents'').

When the conditions in section 337(g)(1)(A)–(g)(1)(E) (19 U.S.C. 1337(g)(1)(A)–(g)(1)(E)) have been satisfied, section 337(g)(1) and Commission Rule 210.16(c) (19 CFR 210.16(c)) direct the Commission, upon request, to issue a limited exclusion order or a cease and desist order or both against a respondent found in default, based on the allegations regarding a violation of section 337 in the Complaint, which are presumed to be true, unless after consideration of the public interest factors in section 337(g)(1), it finds that such relief should not issue.

Having examined the record of this investigation, including the submissions in response to the Commission's notice, the Commission has determined pursuant to subsection 337(g)(1) that the appropriate remedy in this investigation is an LEO prohibiting the unlicensed entry of certain centrifuge utility platform and falling film evaporator systems and components thereof that infringe one or more of claims 1, 10, and 14 of the '338 patent and claims 1, 10, and 18 of the '098 patent, and that are imported by or on behalf of Ambiopharm, RI Hemp Farms, Shanghai Yuanhui, or Charme. In addition, and consistent with the infringement allegations in the complaint, the LEO prohibits the unlicensed entry of certain centrifuge utility platform and falling film evaporator systems and components thereof that infringe one or more of claims 1, 9, and 19 of the '728 patent, and that are imported by Henan Lanphan, EZhydro, or Shanghai Yuanhuai. The Commission has further determined to issue cease and desist orders directed to the domestic respondents, Ambiopharm, RI Hemp Farms, and Ezydro. Because there is no support in the record for commercially significant U.S. inventories and/or significant commercial business operations in the United States as to the foreign respondents, Henan Lanphan, Shanghai Yuanhai, or Charme, the Commission, consistent with its customary practice, declines to issue cease and desist orders as to them.[3] *See Electric Skin Care Devices,* Comm'n Op. at 29–30. The Commission finds that the public interest factors enumerated in subsection 337(g)(1) do not preclude the issuance of the LEO or the CDOs.

As to bonding, Apeks argues that 19 U.S.C. 1337(j)(3) ''does not authorize the Commission to permit defaulted respondents subject to an exclusion order under'' 19 U.S.C. 1337(g)(1) ''to import infringing products under bond during the Presidential review period.'' Apeks Opening Submission at 10. In the alternative, Apeks asserts that bond during the period of Presidential review should be set at one hundred percent (100%) of the entered value of the imported articles that are the subject of the LEO. *Id.*

In response, OUII asserts that the Commission has the discretion to impose a bond during Presidential review. OUII Reply Submission at 2. OUII further notes that it is customary for the Commission to include bonding provisions even as to defaulting respondents. *Id.* at 2–3.

Having reviewed the text and legislative history of section 337,[4] the Commission notes that its consistent practice, including before and after the 1994 amendments to section 337, has been to impose a bond during the Presidential review period, including as to defaulting parties. *E.g., Certain Toothbrushes and the Packaging Thereof,* Inv. No. 337–TA–391, Comm'n Notice, 62 FR 54855 (Oct. 22, 1997); *Certain Electrical Connectors and Products Containing Same,* Inv. No. 337–TA–374, Comm'n Notice, 61 FR 21208 (May 9, 1996); *Certain Woodworking Accessories,* Inv. No. 337–TA–333, Comm'n Notice, 58 FR 4718 (Jan. 15, 1993); *Certain Soft Drinks and Their Containers,* Inv. No. 337–TA–321, Comm'n Notice, 57 FR 304 (Jan. 3, 1992); *Certain Key Blanks for Keys of*

[1] Compl't Apeks' Written Submission on Remedy, the Public Interest and Bonding (Oct. 14, 2022) (''Apeks Opening Submission''); Brief of the Office of Unfair Import Investigations on Remedy, the Public Interest, and Bonding (Oct. 14, 2022) (''OUII Opening Submission'').

[2] Reply Brief of the Office of Unfair Import Investigations on Remedy, the Public Interest, and Bonding (Oct. 21, 2022) (''OUII Reply Submission'').

[3] Commissioners Karpel and Schmidtlein would have issued cease and desist orders as to the foreign defaulting respondents, regardless of domestic business operations or inventories, for the reasons explained in, for example, *Certain Vaporizer Cartridges and Components Thereof,* Inv. No. 337–TA–1211, Comm'n Op. at 13–14 (Mar. 1, 2022).

[4] *See, e.g.,* Omnibus Trade and Competitiveness Act of 1988, Public Law 100–418, 1341–1342, 102 Stat. 1107, 1211–16 (1988); H.R. Rep. No. 100–40 (Part I), at 160–62 (1987); S. Rep. No. 100–71, at 132 (1987); Uruguay Round Agreements Act, Public Law 103–465, 321, 108 Stat. 4809, 4943–44 (1994); S. Rep. 103–412, at 120 (1994).

High Security Cylinder Locks, No. 337–TA–308, Comm'n Notice, 55 FR 35372 (Aug. 29, 1990). The Commission finds no indication that Congress intended to constrain the Commission's authority to impose a bond during the Presidential review period as to defaulting respondents nor any statutory constraint that would override the Commission's long-standing practice. Further, the Commission notes that it has ''broad discretion in selecting the form, scope and extent of the remedy.'' *Viscofan, S.A.* v. *United States Int'l Trade Comm'n,* 787 F.2d 544, 548 (Fed. Cir. 1986). Accordingly, the Commission finds that it is within its remedial discretion to allow bonding during the Presidential review period as to the Defaulting Respondents. Accordingly, in this investigation, the Commission has determined that the bond during the period of Presidential review pursuant to section 337(j) (19 U.S.C. 1337(j)) shall be in the amount of one hundred percent (100%) of the entered value of the subject articles as requested by Apeks.[5] The investigation is terminated.

The Commission vote for this determination took place on March 23, 2023.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), and in Part 210 of the Commission's Rules of Practice and Procedure (19 CFR part 210).

While temporary remote operating procedures are in place in response to COVID–19, the Office of the Secretary is not able to serve parties that have not retained counsel or otherwise provided a point of contact for electronic service. Accordingly, pursuant to Commission Rules 201.16(a) and 210.7(a)(1) (19 CFR 201.16(a), 210.7(a)(1)), the Commission orders that the Complainant complete service for any party/parties without a method of electronic service noted on the attached Certificate of Service and shall file proof of service on the Electronic Document Information System (EDIS).

By order of the Commission.

Issued: March 23, 2023.

Lisa Barton,

Secretary to the Commission.

[FR Doc. 2023–06450 Filed 3–28–23; 8:45 am]

BILLING CODE 7020–02–P

[5] Commissioner Schmidtlein agrees with Apeks' argument that section 337 does not authorize the Commission to permit the Defaulting Respondents to import infringing products under bond during the Presidential review period. To her knowledge, this is the first time this issue has been raised by a party in an investigation. She observes that the bonding provision of the statute, section 337(j)(3), only authorizes importation during the Presidential review period under bond for ''articles directed to be excluded from entry under subsection (d) or subject to a cease and desist order under subsection (f).'' The Defaulting Respondents are subject to remedial relief under subsection (g) not subsections (d) or (f). Subsection (g) governs remedial relief for respondents that do not participate in 337 investigations. By the plain language of section 337(j)(3), the ability to import under bond is unavailable for default remedies issued under subsection (g). Commissioner Schmidtlein finds nothing in the legislative history that speaks to this issue and even if it did it could not be used to change the plain language of the statute. *See In re City of Houston,* 731 F.3d 1326, 1333 (Fed. Cir. 2013) (legislative history cannot be used to contravene the plain language of statute). She also does not agree that the discretion retained by the Commission when it comes to selecting the form, scope and extent of the remedy permits it to act contrary to the plain language of the statute. She would therefore grant Apeks' request and not authorize the Defaulting Respondents to import infringing products under bond during the Presidential review period.

DEPARTMENT OF JUSTICE

[OMB Number 1110–0076]

Agency Information Collection Activities; Proposed eCollection eComments Requested; Revision of a Currently Approved Collection; for the Law Enforcement Executive Development Seminar (LEEDS), FBI National Academy and National Executive Institute Program Questionnaires

AGENCY: Federal Bureau of Investigation, Department of Justice.

ACTION: 60-Day notice.

SUMMARY: The Department of Justice, Federal Bureau of Investigation (FBI), Training Division's Curriculum Management Section (CMS), is 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.

DATES: The Department of Justice encourages public comment and will accept input until May 30, 2023.

FOR FURTHER INFORMATION CONTACT: Written comments/or suggestions regarding the items contained in this notice, especially the estimated public burden associated response time, should be directed to U.S. Department of Justice, Federal Bureau of Investigation, contact Denielle Johnson, Unit Chief, Evaluation and Certification Unit, Training Division, FBI Academy, email address *djjohnson2@fbi.gov,* and telephone number 703–632–1000. Written comments and/or suggestions can also be sent to the Office of Management and Budget, Office of Information and Regulatory Affairs, Attention Department of Justice Desk Officer, Washington, DC 20503 or sent to *OIRA_submission@omb.eop.gov*.

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 Federal Bureau of Investigation, Training Division, 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;

➢ Evaluate whether and if so how the quality, utility, and clarity of the information to be collected can be enhanced; and

➢ Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of responses.

Overview of This Information Collection

1. *Type of Information Collection:* Revision of a currently approved collection.

2. *The Title of the Form/Collection:* FBI Education and Training for Law Enforcement Officers.

3. *The agency form number, if any, and the applicable component of the Department sponsoring the collection:* ''There is no agency form number for this collection.'' The applicable component within the Department of Justice is the Training Division.

4. *Affected public who will be asked or required to respond, as well as a brief abstract:* State/Local and Federal law enforcement. This collection will gather feedback from graduates to determine if the training received from the has made an impact on their agency.

5. *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* 8,250 respondents with an approximate 10 minute burden.

6. *An estimate of the total public burden (in hours) associated with the collection:* approximately 1,375 hours.

If additional information is required contact: John Carlson, Assistant Director, United States Department of

Justice, Justice Management Division, Policy and Planning Staff, Two Constitution Square, 145 N Street NE, 3E.405A, Washington, DC 20530.

Dated: March 24, 2023.

John R. Carlson,

Department Clearance Officer for PRA, Assistant Director, U.S. Department of Justice.

[FR Doc. 2023–06470 Filed 3–28–23; 8:45 am]

BILLING CODE 4410–02–P

DEPARTMENT OF JUSTICE

Notice of Lodging of Proposed Consent Decree Under the Clean Water Act

On March 22, 2023, the Department of Justice lodged a proposed consent decree with the United States District Court for the District of Massachusetts in *United States and Commonwealth of Massachusetts* v. *City Holyoke, Massachusetts,* Case No. 19–cv–10332–MGM (D. MA).

The United States previously filed a complaint under the Clean Water Act (''Act'') seeking injunctive relief and civil penalties for violations of the Act related to the City of Holyoke's (''the City'') discharge of pollutants from combined sewer overflows that caused or contributed to water quality violations in the Connecticut River and discharging pollutants from unpermitted components of the City's sewer collection system to the Connecticut River. The proposed consent decree provides for, among other things, the separation of portions of the City's collection system, the upgrade of certain elements of the combined sewer system, and the implementation of an illicit discharge detection and elimination program to address stormwater discharges. The Decree also provides for the payment of a $50,000 civil penalty.

The publication of this notice opens a period for public comment on the modification to the consent decree. Comments should be addressed to the Assistant Attorney General, Environment and Natural Resources Division, and should refer to *United States and Commonwealth of Massachusetts* v. *City of Holyoke, Massachusetts,* D.J. Ref. No. 90–5–1–1–11703. All comments must be submitted no later than thirty days days after the publication date of this notice. Comments may be submitted either by email or by mail:

To submit comments:	*Send them to:*
By email	*pubcomment-ees.enrd@usdoj.gov.*
By mail	Assistant Attorney General, U.S. DOJ—ENRD, P.O. Box 7611, Washington, DC 20044–7611.

During the public comment period, the proposed modification to the consent decree may be examined and downloaded at this Justice Department website: *https://www.justice.gov/enrd/consent-decrees.* We will provide a paper copy of the proposed modification upon written request and payment of reproduction costs. Please mail your request and payment to: Consent Decree Library, U.S. DOJ—ENRD, P.O. Box 7611, Washington, DC 20044–7611.

Please enclose a check or money order for $12.75 for a copy without appendices and $20.75 for a copy with appendices (25 cents per page reproduction cost) payable to the United States Treasury.

Henry S. Friedman,

Assistant Section Chief, Environmental Enforcement Section, Environment and Natural Resources Division.

[FR Doc. 2023–06463 Filed 3–28–23; 8:45 am]

BILLING CODE 4410–15–P

MILLENNIUM CHALLENGE CORPORATION

[MCC FR 23–01]

Notice of Open Meeting

AGENCY: Millennium Challenge Corporation.

ACTION: Notice.

SUMMARY: In accordance with the requirements of the Federal Advisory Committee Act, the Millennium Challenge Corporation (MCC) Economic Advisory Council was established as a discretionary advisory committee on October 5, 2018. Its charter was most recently renewed on September 30, 2022. The MCC Economic Advisory Council serves MCC solely in an advisory capacity and provides advice and guidance to MCC economists, evaluators, leadership of the Department of Policy and Evaluation, and senior MCC leadership regarding relevant trends in development economics, applied economic and evaluation methods, and poverty analytics, as well as modeling, measuring, and evaluating development interventions. In doing so, the MCC Economic Advisory Council helps sharpen MCC's analytical methods and capacity in support of the agency's economic development goals. It also serves as a sounding board and reference group for assessing and advising on strategic policy innovations and methodological directions in MCC.

DATES: Friday, April 14, 2023, from 10:00 a.m.–12:30 p.m. EDT.

ADDRESSES: The meeting will be held in-person and virtually via WebEx.

FOR FURTHER INFORMATION CONTACT: Mesbah Motamed, 202.521.7874, *MCCEACouncil@mcc.gov* or visit *www.mcc.gov/about/org-unit/economic-advisory-council.*

SUPPLEMENTARY INFORMATION:

Agenda: During this meeting of the MCC Economic Advisory Council, members will receive an overview of MCC's work and the context and function of the MCC Economic Advisory Council within MCC's mission. The MCC Economic Advisory Council will also discuss issues related to MCC's core functions, including a focus on investments in urban settings and their impacts on growth and poverty reduction.

Public Participation: The meeting will be open to the public. Members of the public may file written statement(s) before or after the meeting. If you plan to participate, please submit your name and affiliation no later than Friday, April 7, 2023, to *MCCEACouncil@mcc.gov* to receive instructions for virtual participation and to be placed on an attendee list.

Authority: Federal Advisory Committee Act, 5 U.S.C. App.

Dated: March 23, 2023.

Gina Porto Spiro,

Acting Vice President, General Counsel, and Corporate Secretary.

[FR Doc. 2023–06416 Filed 3–28–23; 8:45 am]

BILLING CODE 9211–03–P

NUCLEAR REGULATORY COMMISSION

[NRC–2022–0026]

Information Collection: Rules of General Applicability to Domestic Licensing of Byproduct Material

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of submission to the Office of Management and Budget; request for comment.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) has recently submitted a request for renewal of an existing collection of information to the Office of Management and Budget

(OMB) for review. The information collection is entitled, ''Rules of General Applicability to Domestic Licensing of Byproduct Material.''

DATES: Submit comments by April 28, 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: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *https://www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under Review—Open for Public Comments'' or by using the search function.

FOR FURTHER INFORMATION CONTACT: David C. Cullison, NRC Clearance Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001; telephone: 301–415–2084; email: *Infocollects.Resource@nrc.gov.*

SUPPLEMENTARY INFORMATION:

I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID NRC–2022–0026 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–2022–0026.
- *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 supporting statement is available in ADAMS under Accession No. ML22271A862.
- *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.
- *NRC's Clearance Officer:* A copy of the collection of information and related instructions may be obtained without charge by contacting the NRC's Clearance Officer, David C. Cullison, Office of the Chief Information Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001; telephone: 301–415–2084; email: *Infocollects.Resource@nrc.gov.*

B. Submitting Comments

Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *https://www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under Review—Open for Public Comments'' or by using the search function.

The NRC cautions you not to include identifying or contact information in comment submissions that you do not want to be publicly disclosed in your comment submission. All comment submissions are posted at *https://www.regulations.gov* and entered into ADAMS. Comment submissions are not routinely edited to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the OMB, 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 comment submissions are not routinely edited to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

II. Background

Under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 35), the NRC recently submitted a request for renewal of an existing collection of information to OMB for review entitled, ''Rules of General Applicability to Domestic Licensing of Byproduct Material.'' The NRC hereby informs potential respondents that an agency may not conduct or sponsor, and that a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

The NRC published a **Federal Register** notice with a 60-day comment period on this information collection on July 22, 2022, 87 FR 43908.

1. *The title of the information collection:* ''Rules of General Applicability to Domestic Licensing of Byproduct Material.''

2. *OMB approval number:* 3150–0017.

3. *Type of submission:* Extension.

4. *The form number, if applicable:* Not applicable.

5. *How often the collection is required or requested:* Required reports are collected and evaluated on a continuing basis as events occur. There is a onetime submittal of information to receive a license. Renewal applications are submitted every 15 years. Information submitted in previous applications may be referenced without being resubmitted. In addition, recordkeeping must be performed on an ongoing basis.

6. *Who will be required or asked to respond:* All persons applying for or holding a license to manufacture, produce, transfer, receive, acquire, own, possess, or use radioactive byproduct material.

7. *The estimated number of annual responses:* 144,734 (17,445 NRC Licensee responses [1,049 reporting responses + 2,200 for recordkeepers + 14,196 third-party disclosures] and (127,289 Agreement State Licensee responses [7,658 reporting responses + 16,000 for recordkeepers + 103,631 third-party disclosures]).

8. *The estimated number of annual respondents:* 18,200 (2,200 NRC Licensees and 16,000 Agreement State Licensees).

9. *The estimated number of hours needed annually to comply with the information collection requirement or request:* 229,100 hours (113,042 reporting hours + 103,708 recordkeeping hours + 12,350 third party disclosure hours).

10. *Abstract:* 10 CFR part 30 establishes requirements that are applicable to all persons in the United States governing domestic licensing of radioactive byproduct material. The application, reporting and recordkeeping requirements are necessary to permit the NRC to make a determination whether the possession, use, and transfer of byproduct material is in conformance with the Commission's regulations for protection of the public health and safety.

Dated: March 24, 2023.

For the Nuclear Regulatory Commission.

David C. Cullison,

NRC Clearance Officer, Office of the Chief Information Officer.

[FR Doc. 2023–06467 Filed 3–28–23; 8:45 am]

BILLING CODE 7590–01–P

POSTAL SERVICE

Product Change—Priority Mail 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:* March 29, 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 March 21, 2023, it filed with the Postal Regulatory Commission a *USPS Request to Add Priority Mail Contract 776 to Competitive Product List.* Documents are available at *www.prc.gov,* Docket Nos. MC2023–123, CP2023–126.

Sarah Sullivan,

Attorney, Ethics & Legal Compliance.

[FR Doc. 2023–06523 Filed 3–28–23; 8:45 am]

BILLING CODE 7710–12–P

POSTAL SERVICE

Product Change—Priority Mail 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:* March 29, 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 March 24, 2023, it filed with the Postal Regulatory Commission a *USPS Request to Add Priority Mail Contract 777 to Competitive Product List.* Documents are available at *www.prc.gov,* Docket Nos. MC2023–124, CP2023–127.

Sarah Sullivan,

Attorney, Ethics & Legal Compliance.

[FR Doc. 2023–06528 Filed 3–28–23; 8:45 am]

BILLING CODE 7710–12–P

SECURITIES AND EXCHANGE COMMISSION

[Investment Company Act Release No. 34870; File No. 812–15303]

Bain Capital Private Credit and BCSF Advisors, LP

March 23, 2023.

AGENCY: Securities and Exchange Commission (''Commission'').

ACTION: Notice.

Notice of an application under section 6(c) of the Investment Company Act of 1940 (the ''Act'') for an exemption from sections 18(a)(2), 18(c), 18(i) and section 61(a) of the Act.

SUMMARY OF APPLICATION: Applicants request an order to permit certain registered closed-end investment companies that intend to elect to be regulated as business development companies to issue multiple classes of shares of beneficial interest with varying sales loads and asset-based distribution and/or service fees.

APPLICANTS: Bain Capital Private Credit and BCSF Advisors, LP.

FILING DATES: The application was filed on January 26, 2022, and amended on March 28, 2022 and February 14, 2023.

HEARING OR NOTIFICATION OF HEARING: An order granting the requested relief will be issued unless the Commission orders a hearing. Interested persons may request a hearing on any application by emailing the SEC's Secretary at *Secretarys-Office@sec.gov* and serving the relevant applicant with a copy of the request by email, if an email address is listed for the relevant applicant below, or personally or by mail, if a physical address is listed for the relevant applicant below. Hearing requests should be received by the Commission by 5:30 p.m. on April 17, 2023, and should be accompanied by proof of service on applicants, in the form of an affidavit or, for lawyers, a certificate of service. Pursuant to rule 0–5 under the Act, hearing requests should state the nature of the writer's interest, any facts bearing upon the desirability of a hearing on the matter, the reason for the request, and the issues contested. Persons who wish to be notified of a hearing may request notification by emailing the Commission's Secretary.

ADDRESSES: The Commission: *Secretarys-Office@sec.gov.* The Applicants: Michael Treisman, Esq., Bain Capital Credit, LP, 200 Clarendon Street, 37th Floor, Boston, MA 02116; Richard Horowitz, Esq., Dechert LLP, *richard.horowitz@dechert.com.*

FOR FURTHER INFORMATION CONTACT: Deepak T. Pai, Senior Counsel, or Terri G. Jordan, Branch Chief, at (202) 551–6825 (Division of Investment Management, Chief Counsel's Office).

SUPPLEMENTARY INFORMATION: For Applicants' representations, legal analysis, and condition, please refer to Applicants' second amended and restated application, dated February 14, 2023, which may be obtained via the Commission's website by searching for the file number at the top of the document, or for an Applicant using the Company name search field, on the SEC's EDGAR system. The SEC's EDGAR system may be searched at *https://www.sec.gov/edgar/searchedgar/legacy/companysearch.html.* You may also call the SEC's Public Reference Room at (202) 551–8090.

For the Commission, by the Division of Investment Management, under delegated authority.

J. Matthew DeLesDernier,

Deputy Secretary.

[FR Doc. 2023–06433 Filed 3–28–23; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–97191; File No. SR–CboeEDGX–2023–022]

Self-Regulatory Organizations; Cboe EDGX Exchange, Inc.; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Update Its Fees Schedule

March 23, 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 March 16, 2023, Cboe EDGX Exchange, Inc. (''Exchange'' or ''EDGX'') filed with the Securities and Exchange Commission (''Commission'') the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

Cboe EDGX Exchange, Inc. (the ''Exchange'' or ''EDGX'') proposes to update its Fees Schedule. The text of the proposed rule change is provided in Exhibit 5.

The text of the proposed rule change is also available on the Exchange's

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

website (*http://markets.cboe.com/us/options/regulation/rule_filings/edgx/*), 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 Exchange proposes to amend the Market Data section of its Fees Schedule.[3] Particularly, the Exchange proposes to (i) adopt a New External Credit applicable to EDGX Options Top, (ii) adopt a credit towards the monthly Distribution fees for EDGX Options Top, (iii) modify the EDGX Options Top Enterprise Fee; and (iv) establish fees for Cboe One Options Feed.

EDGX Top Data

By way of background, the Exchange offers the EDGX Options Top Data feed, which is an uncompressed data feed that offers top-of-book quotations and last sale information based on options orders entered into the Exchange's System. The EDGX Options Top Data feed benefits investors by facilitating their prompt access to real-time top-of-book information contained in EDGX Options Top Data. The Exchange's affiliated options exchanges (*i.e.,* Cboe Exchange, Inc. (''Cboe Options''), Cboe BZX Exchange, Inc. (''BZX Options''), and Cboe C2 Exchange, Inc. (''C2 Options'') (collectively, ''Affiliates'') also offer similar top-of-book data feeds.[4] Particularly, each of the Exchange's Affiliates offer top-of-book quotation and last sale information based on their own quotation and trading activity that is substantially similar to the information provided by the Exchange through the EDGX Options Top. The Exchange proposes to make the following fee changes relating to EDGX Options Top.

New External Distributor Credit

The Exchange first proposes to adopt a New External Distributor Credit which will provide that new External Distributors of the EDGX Options Top feed will not be charged an External Distributor Fee for their first three (3) months in order to incentivize External Distributors to enlist new users to receive EDGX Options Top feed. The Exchange notes that other exchanges, including the Exchange's affiliated equities exchanges, offer similar credits for similar market data products. For example, Cboe's equities exchanges currently offer a three (3) month New External Distributor Credit applicable to External Distributors of their top-of-book data feeds.[5]

Distributor Fee Credit

The Exchange also proposes to provide that each External Distributor will receive a credit against its monthly Distributor Fee for the EDGX Options Top equal to the amount of its monthly Usage Fees up to a maximum of the Distributor Fee for the EDGX Options Top feed. For example, an External Distributor will be subject to a $500 monthly Distributor Fee where they elect to receive the EDGX Options Top. If that External Distributor reports User quantities totaling $500 or more of monthly usage of the EDGX Options Top, it will pay no net Distributor Fee, whereas if that same External Distributor were to report User quantities totaling $400 of monthly usage, it will pay a net of $100 for the Distributor Fee. External Distributors will remain subject to the per User fees applicable to EDGX Options Top. In every case the Exchange will receive at least $500 in connection with the distribution of the EDGX Options Top (through a combination of the External Distribution Fee and per User Fees). The Exchange notes that its affiliated equities exchanges offer a similar credit for a similar market data product.[6]

Enterprise Fee Tiers

The Exchange currently offers Distributors the ability to purchase a monthly (and optional) Enterprise license to receive the EDGX Options Top Feed for distribution to an unlimited number of Professional and Non-Professional Users. The Enterprise Fee is an alternative to Professional and Non-Professional User fees and permits a Distributor to pay a flat fee for an unlimited number of Professional and Non-Professional Users and is in addition to the Distribution fees. The Exchange currently assesses an Enterprise fee of $20,000 per month. The Exchange proposes to modify the current Enterprise Fee and adopt a tiered structure based on the number of Users a Distributor has. The Exchange proposes to adopt the following monthly Enterprise Fees: $20,000 for up to 1,500,000 Users (Tier 1), $40,000 for 1,500,001 to 2,500,000 Users (Tier 2) and $60,000 for 2,500,001 or greater Users (Tier 3). The proposed fees are non-progressive (*e.g.,* if a Distributor has 2,000,000 Users, it will be subject to $40,000 for Tier 2). The Enterprise Fee may provide an opportunity to reduce fees. For example, if a Distributor has 1 million Non-Professional Users who each receive Cboe One Options Feed at $0.10 per month (as proposed), then that Distributor will pay $100,000 per month in Professional Users fees. If the Distributor instead were to purchase the proposed Enterprise license (tier 1), it would alternatively pay a flat fee of $20,000 for up to 1.5 million Professional and Non-Professional Users. A Distributor that pays the Tier 1 or Tier 2 Enterprise Fee will have to report its number of such Users on a monthly basis. A Distributor that pays the Tier 3 Enterprise Fee will only have to report the number of its Users every six months.[7] The Exchange notes that if the reported number of Users exceed the Enterprise Tier a Distributor has purchased, the higher Tier will apply (*e.g.,* if a Distributor purchases Tier 1, but reports 1,600,000 Users for a month, the Distributor will be assessed the Tier 2 fee).

The Exchange also proposes to allow Distributors to purchase the Enterprise Fee on a monthly or annual basis. Annual licenses will receive a 5% discount off the applicable Enterprise Tier fee. The Exchange notes that the purchase of an Enterprise license is voluntary, and a firm may elect to instead use the per User structure and benefit from the proposed per User Fees described above. For example, a firm that does not have a sufficient number of Users to benefit from purchase of a license need not do so.

[3] The Exchange initially filed the proposed fee changes on March 1, 2023 (SR–CboeEDGX–2023–017). On March 3, 2023, the Exchange withdrew that filing and submitted SR–CboeEDGX–2023–018. On March 10, 2023, the Exchange withdrew that filing and submitted SR–CboeEdgx–2023–021. On March 16, 2023 the Exchange withdrew that filing and submitted this proposal.

[4] *See* Cboe Options Fees Schedule, C2 Options Fees Schedule, and BZX Rule 21.15.

[5] *See e.g.,* EDGX Equities Exchange Fees Schedule, Market Data Fees.

[6] *See e.g.,* EDGX Equities Exchange Fees Schedule, Id.

[7] *See* Cboe Global Markets north American Data Policies.

Cboe One Options Feed

By way of background, the Exchange recently adopted a new market data product called Cboe One Options Feed, which is launching March 1, 2023.[8] Cboe One Options Feed will provide top-of-book quotation and last sale information based on the quotation and trading activity on the Exchange and each of its Affiliates, which the Exchange believes offers a comprehensive and highly representative view of US options pricing to market participants. More specifically, Cboe One Options Feed will contain the aggregate best bid and offer (''BBO'') of all displayed orders for options traded on the Exchange and its Affiliates, as well as individual last sale information and volume, which includes the price, time of execution and individual Cboe options exchange on which the trade was executed.

The Cboe One Options Feed will also consist of Symbol Summary,[9] Market Status,[10] Trading Status,[11] and Trade Break [12] messages for the Exchange and each of its Affiliates.

The Exchange will use the following data feeds to create the Cboe One Options Feed, each of which is available to other vendors and/or distributors: Cboe Options Top Data, C2 Options Top Data, EDGX Options Top and BZX Options Top. A vendor and/or distributor that wishes to create a product like the Cboe One Options Feed could instead subscribe to each of the aforementioned data feeds. Any entity that receives, or elects to receive, the individual data feeds or the feeds that may be used to create a product like the Cboe One Options Feed would be able to, if it so chooses, to create a data feed with the same information included in the Cboe One Options Feed and sell and distribute it to its clients so that it could be received by those clients as quickly as the Cboe One Options Feed would be received by those same clients.

The Exchange proposes to amend its fee schedule to incorporate fees related to the Cboe One Options Feed. The Exchange has taken into consideration its affiliated relationship with its Affiliates in its design of the Cboe One Options Feed to assure that vendors [13] would be able to offer a similar product on the same terms as the Exchange from a cost perspective. Although Cboe Options Exchanges are the exclusive distributors of the individual data feeds from which certain data elements would be taken to create the Cboe One Options Feed, the Exchange would not be the exclusive distributor of the aggregated and consolidated information that compose the proposed Cboe One Options Feed. Distributors and/or vendors would be able, if they chose, to create a data feed with the same information as the Cboe One Options Feed and distribute it to their clients on a level-playing field with respect to latency and cost as compared to the Exchange's proposed Cboe One Options Feed. The pricing the Exchange proposes to charge for the Cboe One Options Feed, as described more fully below, is not lower than the cost to a distributor or vendor to obtain the underlying data feeds. In fact, the Distribution and User (Professional and Non-Professional) fees, as well as the optional Enterprise Fees, that the Exchange proposes to adopt for the Cboe One Options Feed are equal to the respective combined fees for subscribing to each individual data feed. The Exchange also proposes to adopt a ''Data Consolidation Fee,'' which would reflect the value of the aggregation and consolidation function the Exchange performs in creating the Cboe One Options Feed. Therefore, vendors would be enabled to create a competing product based on the individual data feeds and charge their clients a fee that they believe reflects the value of the aggregation and consolidation function that is competitive with Cboe One Options Feed pricing. For these reasons, the Exchange believes that vendors could readily offer a product similar to the Cboe One Options Feed on a competitive basis at a similar cost.

The proposed Cboe One Options Feed fees include the following, each of which are described in further detail below: (i) Distributor Fees; (ii) User Fees for both Professional and Non-Professional Users; (iii) Enterprise Fees; and (iv) a Data Consolidation Fee. The Exchange also proposes to adopt a New External Distributor credit and a credit against the monthly External Distribution Fee equal to the amount of monthly User Fees up to a maximum of the External Distributor Fee. To ensure consistency across the Cboe Options Exchanges, Cboe Options, C2 Options, and BZX Options will be filing companion proposals to reflect this proposal in their respective fee schedules.

Distributor Fees

As proposed, each Internal Distributor that receives the Cboe One Options Feed shall pay a fee of $15,000 per month. The proposed Internal Distribution Fee equals the combined monthly Internal Distribution fees for the underlying individual data feeds of the Cboe Options Exchanges (*i.e.,* the monthly Internal Distribution fees are $3,000 for BZX Options Top, $500 for EDGX Options Top, $2,500 for C2 Options Top and $9,000 for Cboe Options Top). The Exchange also proposes to assess External Distributors a monthly fee of $10,000. The proposed External Distribution fee equals the combined monthly External Distribution fees for the underlying individual data feeds of the Cboe Options Exchanges (*i.e.,* the monthly External Distribution fees are $5,000 per month for the Cboe Options Top, $2,500 per month for C2 Options Top, $2,000 per month for BZX Options Top, and $500 for EDGX Options Top). As noted above, the Exchange is proposing to charge External Distributors an External Distribution Fee that equals the combined External Distribution fees of each individual Top feed to ensure that vendors could compete with the Exchange by creating the same product as the Cboe One Options Feed to sell to their clients.

[8] *See* SR–CboeEDGX–2023–013.

[9] The Symbol Summary message will include the total executed volume across all Cboe Options Exchanges.

[10] The Market Status message is disseminated to reflect a change in the status of one of the Cboe Options Exchanges. For example, the Market Status message will indicate whether one of the Cboe Options Exchanges is experiencing a systems issue or disruption and quotation or trade information from that market is not currently being disseminated via the Cboe One Options Feed as part of the aggregated BBO. The Market Status message will also indicate when a Cboe Options Exchange is no longer experiencing a systems issue or disruption to properly reflect the status of the aggregated BBO.

[11] The Trade Break message will indicate when an execution on a Cboe Options Exchange is broken in accordance with the individual Cboe Options Exchange's rules (*e.g.,* Cboe Options Rule 6.5, C2 Option Rule 6.5, BZX Options Rule 20.6, EDGX Options Rule 20.6).

[12] The Trading Status message will indicate the current trading status of an option contract on each individual Cboe Options Exchange. A Trading Status message will also be sent whenever a security's trading status changes. For example, a Trading Status message will be sent when a symbol is open for trading or when a symbol is subject to a trading halt or when it resumes trading.

[13] For purposes of this filing, a ''vendor'', which is a type of distributor, will refer to any entity that receives an exchange market data product directly from the exchange or indirectly from another entity (for example, from an extranet) and then resell that data to a third-party customer (*e.g.,* a data provider that resells exchange market data to a retail brokerage firm). The term ''distributor'' herein, will refer to any entity that receives an exchange market data product, directly from the exchange or indirectly from another entity (*e.g.,* from a data vendor) and then distributes to individual internal or external end-users (*e.g.,* a retail brokerage firm who distributes exchange data to its individual employees and/or customers). An example of a vendor's ''third-party customer'' or ''customer'' is an institutional broker dealer or a retail broker dealer, who then may in turn distribute the data to their customers who are individual internal or external end-users.

New External Distributor Credit

The Exchange proposes to adopt a New External Distributor Credit which would provide that new External Distributors of the Cboe One Options Feed will not be charged an External Distributor Fee for their first three (3) months in order to incentive them to enlist new Users to receive the Cboe One Options Feed. The Exchange notes that other exchanges, including the Exchange's affiliated equities exchanges offer similar credits for similar market data products. For example, Cboe's equities exchanges currently offer a three (3) month New External Distributor Credit applicable to Cboe One Summary Feed.[14] To alleviate any competitive issues that may arise with a vendor seeking to offer a product similar to the Cboe One Options Feed based on the underlying data feeds, the Exchange is proposing, as discussed above, to also adopt a three month New External Distributor Credit for the underlying top-of-book data feeds for the Cboe Options Exchanges. The respective proposals to adopt a three-month credit ensures the proposed New External Distributor Credit for Cboe One Options will not cause the combined cost of subscribing to Cboe Options, C2 Options, BZX Options and EDGX Options Top feeds for new External Distributors to be greater than those that would be charged to subscribe to the Cboe One Options feed.

User Fees

In addition to Internal and External Distributor Fees, the Exchange proposes to assess Professional[15] User and Non-Professional[16] User Fees. The proposed monthly Professional User fee for the Cboe Options Exchanges is $30.50 per Professional User, which equals the combined monthly Professional User fees of the underlying individual Cboe Options Exchanges Top feeds (*i.e.,* $15.50 per Professional User for the Cboe Options Top, $5 per Professional User for C2 Options Top, $5 per Professional User for BZX Options Top, and $5 per Professional User for EDGX Options Top). The Exchange also proposes to adopt a monthly Non-Professional User fee of $0.60 per Non-Professional User, which similarly represents the combined total Non-Professional User fee for the individual data feeds of the Cboe Options (*i.e.,* $0.30 per Non-Professional User for Cboe Options Top, $0.10 per Non-Professional User for C2 Options Top, $0.10 per Non-Professional User for BZX Options Top, and $0.10 per Non-Professional User for EDGX Options Top). Similar to the individual underlying feeds, Distributors that receive Cboe One Options Feed will be required to count Professional and Non-Professional Users to which they provide the data feed.

The Exchange also proposes to provide that each External Distributor will receive a credit against its monthly Distributor Fee for the Cboe One Feed equal to the amount of its monthly User Fees up to a maximum of the Distributor Fee for the Cboe One Options Feed. For example, an External Distributor will be subject to a $10,000 monthly Distributor Fee where they elect to receive the Cboe One Options Feed. If that External Distributor reports User quantities totaling $10,000 or more of monthly User fees of the Cboe Options One Feed, it will pay no net Distributor Fee, whereas if that same External Distributor were to report User quantities totaling $9,000 of monthly usage, it will pay a net of $1,000 for the Distributor Fee. External Distributors will remain subject to the per User fees discussed above. In every case the Exchange will receive at least $10,000 in connection with the distribution of the Cboe One Options Feed (through a combination of the External Distribution Fee and per User Fees). The Exchange notes that its affiliated equities exchanges offer a similar credit for a similar market data product.[17]

Enterprise Fees

The Exchange also proposes to establish Enterprise Fees that will permit a Distributor to purchase a monthly (and optional) Enterprise license to receive the Cboe One Options Feed for distribution to a specified number of Professional and Non-Professional Users. The Enterprise Fee will be an alternative to Professional and Non-Professional User fees and will permit a Distributor to pay a flat fee to receive the data for a specified number of Professional and Non-Professional Users, which the Exchange proposes to make clear in the Fee Schedule. Like User fees, the Enterprise Fee would be assessed in addition to the Distribution Fees. The Exchange proposes to adopt the following monthly Enterprise Fees: $350,000 for up to 1,500,000 Users (Tier 1), $550,000 for 1,500,001 to 2,500,000 Users (Tier 2) and $750,000 for 2,500,001 or greater Users (Tier 3). The proposed fees are non-progressive (*e.g.,* if a Distributor has 2,000,000 Users, it will be subject to $550,000 for Tier 2). The Enterprise Fee may provide an opportunity to reduce fees. For example, if a Distributor has 1 million Non-Professional Users who each receive Cboe One Options Feed at $0.60 per month (as proposed), then that Distributor will pay $600,000 per month in Professional Users fees. If the Distributor instead were to purchase the proposed Enterprise license (tier 1), it would alternatively pay a flat fee of $350,000 for up to 1.5 million Professional and Non-Professional Users. A Distributor must pay a separate Enterprise Fee for each entity that controls the display of Cboe One Options Feed if it wishes for such Users to be covered by an Enterprise Fee rather than by per User fees.[18] A Distributor that pays the Tier 1 or Tier 2 Enterprise Fee will have to report its number of such Users on a monthly basis. A Distributor that pays the Tier 3 Enterprise Fee will only have to report the number of its Users every six months.[19] The Exchange notes that if the reported number of Users exceed the Enterprise Tier a Distributor has purchased, the higher Tier will apply (*e.g.,* if a Distributor purchases Tier 1, but reports 1,600,000 Users for a month, the Distributor will be assessed the Tier 2 fee).

The Exchange also proposes to allow Distributors to purchase the Enterprise Fee on a monthly or annual basis. Annual licenses will receive a 5% discount off the applicable Enterprise Fee tier. The Exchange notes that the

[14] *See e.g.,* EDGX Equities Exchange Fees Schedule, Market Data Fees.

[15] A Professional User of an Exchange Market Data product is any natural person recipient of an Exchange Market Data product who is not a Non-Professional User.

[16] A ''Non-Professional User'' of an Exchange Market Data product is a natural person or qualifying trust that uses Data only for personal purposes and not for any commercial purpose and, for a natural person who works in the United States, is not: (i) registered or qualified in any capacity with the Securities and Exchange Commission, the Commodities Futures Trading Commission, any state securities agency, any securities exchange or association, or any commodities or futures contract market or association; (ii) engaged as an ''investment adviser'' as that term is defined in Section 202(a)(11) of the Investment Advisors Act of 1940 (whether or not registered or qualified under that Act); or (iii) employed by a bank or other organization exempt from registration under federal or state securities laws to perform functions that would require registration or qualification if such functions were performed for an organization not so exempt; or, for a natural person who works outside of the United States, does not perform the same functions as would disqualify such person as a Non-Professional User if he or she worked in the United States.

[17] *See e.g.,* EDGX Equities Exchange Fees Schedule, Market Data Fees.

[18] For example, if a Distributor that distributes EDGX Options Top to Retail Brokerage Firm A and Retail Brokerage Firm B and wishes to have the Users under each firm covered by an Enterprise license, the Distributor would be subject to two Enterprise Fees.

[19] *See* Cboe Global Markets north American Data Policies.

purchase of an Enterprise license is voluntary, and a firm may elect to instead use the per User structure and benefit from the proposed per User Fees described above. For example, a firm that does not have a sufficient number of Users to benefit from purchase of a license need not do so.

Data Consolidation Fee

The Exchange also proposes to charge External Distributors of the Cboe One Options Feed a separate Data Consolidation Fee, which reflects the value of the aggregation and consolidation function the Exchange performs in creating the Cboe One Options Feed. As stated above, the Exchange creates the Cboe One Options Feed from data derived from the Cboe Options Top, C2 Options Top, BZX Options Top, and EDGX Options Top Feeds. External Distributors could similarly create a competing product to the Cboe One Options Feed based on these individual data feeds, or, alternatively, the applicable Top and Last Sale products offered by the Exchanges, and could charge its clients a fee that it believes reflects the value of the aggregation and consolidation function. Accordingly, the Exchange believes that vendors could readily offer a product similar to the Cboe One Options Feed on a competitive basis at a similar cost.

3. Statutory Basis

The Exchange believes that the proposed rule change is consistent with the objectives of Section 6 of the Act,[20] in general, and furthers the objectives of Section 6(b)(4),[21] in particular, as it is designed to provide for the equitable allocation of reasonable dues, fees and other charges among its members and other recipients of Exchange data. In addition, the Exchange believes that the proposed rule change is consistent with Section 11(A) of the Act as it supports (i) fair competition among brokers and dealers, among exchange markets, and between exchange markets and markets other than exchange markets, and (ii) the availability to brokers, dealers, and investors of information with respect to quotations for and transactions in securities.[22] Finally, the proposed rule change is also consistent with Rule 603 of Regulation NMS,[23] which provides that any national securities exchange that distributes information with respect to quotations for or transactions in an NMS stock do so on terms that are not unreasonably discriminatory.

The Exchange first notes that it operates in a highly competitive environment. Indeed, there are currently 16 registered options exchanges that trade options. Based on publicly available information, no single options exchange has more than 17% of the market share.[24] The Exchange believes top-of-book quotation and transaction data is highly competitive as national securities exchanges compete vigorously with each other to provide efficient, reliable, and low-cost data to a wide range of investors and market participants. Indeed, there are several competing products offered by other national securities exchanges today, not counting products offered by the Exchange's affiliates, and each of the Exchange's affiliated U.S. options exchanges also offers similar top-of-book data.[25] Each of those exchanges offer top-of-book quotation and last sale information based on their own quotation and trading activity that is substantially similar to the information provided by the Exchange through the EDGX Options Top Data Feed. Further, the quote and last sale data contained in the EDGX Data Feed is identical to the data sent to OPRA for redistribution to the public.[26] Accordingly, Exchange top-of-book data is widely available today from a number of different sources.

Moreover, the EDGX Options Top Data Feed and Cboe One Options Feeds are distributed and purchased on a voluntary basis, in that neither the Exchange nor market data distributors are required by any rule or regulation to make these data products available. Accordingly, Distributors (including vendors) and Users can discontinue use at any time and for any reason, including due to an assessment of the reasonableness of fees charged. Further, the Exchange is not required to make any proprietary data products available or to offer any specific pricing alternatives to any customers. Moreover, persons (including broker-dealers) who subscribe to any exchange proprietary data feed must also have equivalent access to consolidated Options Information[27] from OPRA for the same classes or series of options that are included in the proprietary data feed, and proprietary data feeds cannot be used to meet that particular requirement.[28] As such, all proprietary data feeds are optional.

The Commission has repeatedly expressed its preference for competition over regulatory intervention in determining prices, products, and services in the securities markets. Particularly, in Regulation NMS, the Commission highlighted the importance of market forces in determining prices and SRO revenues and, also, recognized that current regulation of the market system ''has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.'' [29] Making similar data products available to market participants fosters competition in the marketplace, and constrains the ability of exchanges to charge supracompetitive fees. In the event that a market participant views one exchange's data product as more or less attractive than the competition they can and do switch between similar products. The proposed fees are a result of the competitive environment, as the Exchange seeks to adopt fees to attract purchasers of EDGX Options Top Data and Cboe One Options Feed.

The Exchange has also taken into consideration its affiliated relationship with its Affiliates in its design of the Cboe One Options Feed to ensure that vendors would be able to offer a similar product on the same terms as the Exchange from a cost perspective. While the Cboe Options Exchanges are the exclusive distributors of the individual data feeds from which certain data elements may be taken to create the Cboe One Options Feed, they are not the exclusive distributors of the aggregated

[20] 15 U.S.C. 78f.

[21] 15 U.S.C. 78f(b)(4)

[22] 15 U.S.C. 78k–1.

[23] *See* 17 CFR 242.603.

[24] *See* Cboe Global Markets U.S. Options Market Month-to-Date Volume Summary (February 23, 2024), available at *https://markets.cboe.com/us/options/market_statistics/*.

[25] *See e.g.,* NYSE Arca Options Proprietary Market Data Fees Schedule, MIAX Options Exchange, Fee Schedule, Section 6 (Market Data Fees), Nasdaq PHLX Options 7 Pricing Schedule, Section 10 (Proprietary Data Feed Fees) and Cboe Data Services, LLC Fees Schedule.

[26] The Exchange makes available the top-of-book data and last sale data that is included in the EDGX Options Top Data Feed no earlier than the time at which the Exchange sends that data to OPRA.

[27] ''Consolidated Options Information'' means consolidated Last Sale Reports combined with either consolidated Quotation Information or the BBO furnished by OPRA. Access to consolidated Options Information is deemed ''equivalent'' if both kinds of information are equally accessible on the same terminal or work station. See Limited Liability Company Agreement of Options Price Reporting Authority, LLC (''OPRA Plan''), Section 5.2(c)(iii). The Exchange notes that this requirement under the OPRA Plan is also reiterated under the Cboe Global Markets Global Data Agreement and Cboe Global Markets North American Data Policies, which subscribers to any exchange proprietary product must sign and are subject to, respectively. Additionally, the Exchange's Data Order Form (used for requesting the Exchange's market data products) requires confirmation that the requesting market participant receives data from OPRA.

[28] *Id.*

[29] *See* Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37496, 37499 (June 29, 2005) (''Regulation NMS Adopting Release'').

and consolidated information that comprises the Cboe One Options Feed. Any entity that receives, or elects to receive, the individual data feeds would be able to, if it so chooses, to create a data feed with the same information included in the Cboe One Options Feed and sell and distribute it to its clients so that it could be received by those clients as quickly as the Cboe One Options Feed would be received by those same clients with no greater cost than the Exchange.

In addition, vendors and Distributors that do not wish to purchase the Cboe One Options Feed may separately purchase the individual underlying products, and if they so choose, perform a similar aggregation and consolidation function that the Exchange performs in creating the Cboe One Options Feed. To enable such competition, the Exchange is offering the Cboe One Options Feed on terms that a vendor of those underlying feeds could offer a competing product if it so chooses.

In addition, the fees that are the subject of this rule filing are constrained by competition. Particularly, the Exchange competes with other exchanges (and their affiliates) that may choose to offer similar market data products. If another exchange (or its affiliate) were to charge less to consolidate and distribute a similar product than the Exchange charges to consolidate and distribute the Cboe One Options Feed, prospective Users likely could choose to not subscribe to, or would cease subscribing to, the Cboe One Options Feed. In addition, the Exchange would compete with unaffiliated market data vendors who would be in a position to consolidate and distribute the same data that comprises the Cboe One Options Feed into the vendor's own comparable market data product. If the third-party vendor is able to provide the exact same data for a lower cost, prospective Users would avail themselves of that lower cost and elect not to take the Cboe One Options Feed.

For these reasons, the Exchange believes that the proposed fees are reasonable, equitable, and not unfairly discriminatory.

User Fees. The Exchange believes that the proposed Professional and Non-Professional User fees for the Cboe One Options Feed are reasonable because they represent the combined monthly fees for Professional and Non-Professional User fees, respectively for the underlying individual data feeds, which have previously been filed with the Commission. The Exchange believes that the proposed fees are equitable and not unfairly discriminatory because they will be charged uniformly to Distributors. Moreover, the proposed fee structure of differentiated Professional and Non-Professional fees that are paid by both Internal and External Distributors has long been used by other exchanges, including the Exchange, for their proprietary data products, and by the OPRA plan in order to reduce the price of data to retail investors and make it more broadly available.[30] The Exchange also believes offering Cboe One Options Feed to Non-Professional Users at a lower cost than Professional Users results in greater equity among data recipients, as Professional Users are categorized as such based on their employment and participation in financial markets, and thus, are compensated to participate in the markets. Although Non-Professional Users too can receive significant financial benefits through their participation in the markets, the Exchange believes it is reasonable to charge more to those Users who are more directly engaged in the markets.

Enterprise Fee. The Exchange believes the proposed Enterprise Fees for the Cboe One Options Feed and proposed changes to the Enterprise Fee for the EDGX Options Top feed are reasonable as the fees proposed could result in a fee reduction for Distributors of the respective products with a large number of Professional and Non-Professional Users. If a Distributor has a smaller number of Professional Users of the Cboe One Options Feed, then it may continue using the per User structure and benefit from the per User Fee reductions. By reducing prices for Distributors with a large number of Professional and Non-Professional Users, the Exchange believes that more firms may choose to receive and to distribute the Cboe One Options Feed, thereby expanding the distribution of this market data for the benefit of investors. Also as described above, the Enterprise Fees are entirely optional. A firm that does not have a sufficient number of Users to benefit from purchase of a license need not do so.

Distributor Fees. The Exchange believes that the proposed Distributor fees for the Cboe One Options Feed are reasonable because they represent the combined monthly fees for Internal and External Distributor fees, respectively for the underlying individual data feeds, which have previously been filed with the Commission. The Exchange believes that the proposed fees are equitable and not unfairly discriminatory because they will be charged uniformly to Internal and External Distributors. The Exchange believes that it is also fair and equitable, and not unfairly discriminatory to charge different fees for internal and external distribution of the Cboe One Options Feed. Although the proposed distribution fee charged to External Distributors will be lower than the existing distribution fee charged to Internal Distributors, External Distributors are subject to Non-Professional user fees to which Internal Distributors are not subject, in addition to Professional User fees (or alternatively the proposed Enterprise Fee). Furthermore, the proposal is designed to incentivize External Distributors to subscribe to Cboe One Options Feed.

The proposed Distributor Fees for the Cboe One Options Feed are also designed to ensure that vendors could compete with the Exchange by creating a similar product as the Cboe One Options Feed. The Exchange believes that the proposed Distributor Fees are equitable and reasonable as they equal the combined fee of subscribing to each individual data feed of the Cboe Options Exchanges, which have been previously published by the Commission.

In addition, the Exchange believes it is reasonable to not charge External Distributors of EDGX Options Top and Cboe One Options Feed a Distribution Fee during their first three (3) months and does not believe this would inhibit a vendor from creating a competing product and offer a similar free period as the Exchange. Specifically, a vendor seeking to create the Cboe One Options Feed could do so by subscribing to the underlying individual data feeds, all of which will also include a New External Distributor Credit identical to that proposed for the Cboe One Options Feed. As a result, a competing vendor would incur similar costs as the Exchange in offering such free period for a competing product and may do so on the same terms as the Exchange.

Data Consolidation Fee. The Exchange believes that the proposed $500 per month Data Consolidation Fee charged to Distributors who receive the Cboe One Options Feed is reasonable because it represents the value of the data aggregation and consolidation function that the Exchange performs. The Exchange further believes the

[30] *See, e.g.,* Securities Exchange Act Release No. 59544 (March 9, 2009), 74 FR 11162 (March 16, 2009) (SR–NYSE–2008–131) (establishing the $15 Non-Professional User Fee (Per User) for NYSE OpenBook); *See, e.g.,* Securities Exchange Act Release No. 67589 (August 2, 2012), 77 FR 47459 (August 8, 2012) (revising OPRA's definition of the term ''Nonprofessional''); and *See* Securities Exchange Act Release No. 70683 (October 15, 2013), 78 FR 62798 (October 22, 2013) (SR–CBOE–2013–087) (establishing Professional and Non-Professional User fees for Cboe Options COB Data Feed).

proposed Data Consolidation Fee is not designed to permit unfair discrimination because all Distributor who obtain the Cboe One Options Feed will be charged the same fee. The increased cost of the Cboe One Options Feed is designed to include the value of the aggregation and consolidation function the Exchange performs in creating the Cboe One Options Feed. Therefore, the Exchange believes the proposed application of the Data Consolidation Fee is reasonable would not permit unfair discrimination.

In addition, a vendor could create a competing product based on the individual data feeds and charge its clients a fee that it believes reflects the value of the aggregation and consolidation function that is competitive with the Cboe One Options Feed pricing. Therefore, the Exchange believes the proposed pricing would enable a vendor to create a competing product based on the individual data feeds and charge its clients a fee that it believes reflects the value of the aggregation and consolidation function that is competitive with Cboe One Options Feed pricing.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange 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. The Exchange operates in a highly competitive environment, and its ability to price top-of-book data is constrained by competition among exchanges that offer similar data products to their customers. Top-of-book data is broadly disseminated by competing U.S. options exchanges and through OPRA. In this competitive environment potential Distributors are free to choose which competing product to purchase to satisfy their respective needs for market information. Often, the choice comes down to price, as market data participants look to purchase cheaper data products, and quality, as market participants seek to purchase data that represents significant market liquidity.

The Exchange believes that the proposed fees do not impose a burden on competition or on other SROs that is not necessary or appropriate in furtherance of the purposes of the Act. In particular, market participants are not forced to subscribe to EDGX Options Top, Cboe One Options Feed or any of the Exchange's data feeds, as described above. As noted, the quote and last sale data contained in the Exchange's EDGX Options Top feed is identical to the data sent to OPRA for redistribution to the public. Accordingly, Exchange top-of-book data is widely available today from a number of different sources.

The Exchange believes that the proposed fees do not put any market participants at a relative disadvantage compared to other market participants. As discussed, the proposed waiver, credits and Enterprise Fees would apply to all similarly situated Distributors of EDGX Options Top on an equal and non-discriminatory basis. Because market data customers can find suitable substitute feeds, an exchange that overprices its market data products stands a high risk that users may substitute another product. These competitive pressures ensure that no one exchange's market data fees can impose an undue burden on competition, and the Exchange's proposed fees do not do so here.

Additionally, the Cboe One Options Feed will enhance competition because it provides investors with an alternative option for receiving market data. Although the Cboe Options Exchanges are the exclusive distributors of the individual data feeds from which certain data elements would be taken to create the Cboe One Options Feed, the Exchange would not be the exclusive distributor of the aggregated and consolidated information that would compose the proposed Cboe One Options Feed. Any entity that receives, or elects to received, the underlying data feeds would be able to, if it so chooses, to create a data feed with the same information included in the Cboe One Options Feed and sell and distribute it to its clients so that it could be received by those clients as quickly as the Cboe One Options Feed would be received by those same clients and at a similar cost.

The proposed pricing the Exchange would charge for the Cboe One Options Feed compared to the cost of the individual data feeds from the Cboe Options Exchanges would enable a vendor to receive the underlying individual data feeds and offer a similar product on a competitive basis and with no greater cost than the Exchange. The pricing the Exchange proposes to charge for the Cboe One Options Feed is not lower than the cost to a vendor of receiving the underlying data feeds. Indeed, the proposed pricing equals the combined costs of the respective fees, and the proposed waivers are also being proposed for the underlying individual feeds as well, thereby enabling a vendor to receive the underlying data feeds and offer a similar product on a competitive basis and with no greater cost than the Exchange.

The Exchange further believes that its proposed monthly Data Consolidation Fee would be pro-competitive because a vendor could create a competing product, perform a similar aggregating and consolidating function, and similarly charge for such service. The Exchange notes that a competing vendor might engage in a different analysis of assessing the cost of a competing product. For these reasons, the Exchange believes the proposed pricing, fee waiver and credit, would enable a vendor to create a competing product based on the individual data feeds and charge its clients a fee that it believes reflects the value of the aggregation and consolidation function that is competitive with Cboe One Options Feed pricing.

In establishing the proposed fees, the Exchange considered the competitiveness of the market for proprietary data and all of the implications of that competition. The Exchange believes that it has considered all relevant factors and has not considered irrelevant factors in order to establish fair, reasonable, and not unreasonably discriminatory fees and an equitable allocation of fees among all users. The existence of alternatives to the Cboe One Options Feed, including the existing underlying feeds and data from other sources, such as OPRA, constrains the Exchange from setting unreasonable fees, or fees that are unreasonably discriminatory, when vendors and Distributors can elect these alternatives or choose not to purchase a specific proprietary data product if its cost to purchase is not justified by the returns any particular vendor or Distributor would achieve through the purchase.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

The Exchange has not solicited, and does not intend to solicit, comments on this proposed rule change. The Exchange has not received any written comments from members or other interested parties.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A) of the Act [31] and paragraph (f) of Rule 19b–4 [32] thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may

[31] 15 U.S.C. 78s(b)(3)(A).

[32] 17 CFR 240.19b–4(f).

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 will 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 (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–CboeEDGX–2023–022 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–2023–022. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–CboeEDGX–2023–022 and should be submitted on or before April 19, 2023.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[33]

J. Matthew DeLesDernier,

Deputy Secretary.

[FR Doc. 2023–06428 Filed 3–28–23; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Investment Company Act Release No. 34871; 812–15438]

Nomura Alternative Income Fund and Nomura Private Capital LLC

March 23, 2023.

AGENCY: Securities and Exchange Commission (''Commission'' or ''SEC'').

ACTION: Notice.

Notice of an application under section 6(c) of the Investment Company Act of 1940 (the ''Act'') for an exemption from sections 18(a)(2), 18(c) and 18(i) of the Act, under sections 6(c) and 23(c) of the Act for an exemption from rule 23c–3 under the Act, and for an order pursuant to section 17(d) of the Act and rule 17d–1 under the Act.

SUMMARY OF APPLICATION: Applicants request an order to permit certain registered closed-end investment companies to issue multiple classes of shares and to impose asset-based distribution and/or service fees and early withdrawal charges.

APPLICANTS: Nomura Alternative Income Fund and Nomura Private Capital LLC.

FILING DATES: The application was filed on February 16, 2023.

HEARING OR NOTIFICATION OF HEARING: An order granting the requested relief will be issued unless the Commission orders a hearing. Interested persons may request a hearing on any application by emailing the SEC's Secretary at *Secretarys-Office@sec.gov* and serving the Applicants with a copy of the request by email, if an email address is listed for the relevant Applicant below, or personally or by mail, if a physical address is listed for the relevant Applicant below. Hearing requests should be received by the Commission by 5:30 p.m. on April 17, 2023, and should be accompanied by proof of service on the Applicants, in the form of an affidavit, or, for lawyers, a certificate of service. Pursuant to rule 0–5 under the Act, hearing requests should state the nature of the writer's interest, any facts bearing upon the desirability of a hearing on the matter, the reason for the request, and the issues contested. Persons who wish to be notified of a hearing may request notification by emailing the Commission's Secretary.

ADDRESSES: The Commission: *Secretarys-Office@sec.gov.* Applicants: Joshua B. Deringer, Esq., Faegre Drinker Biddle & Reath LLP, *joshua.deringer@faegredrinker.com.*

FOR FURTHER INFORMATION CONTACT: Trace W. Rakestraw, Senior Special Counsel, at (202) 551–6825 (Division of Investment Management, Chief Counsel's Office).

SUPPLEMENTARY INFORMATION: For Applicants' representations, legal analysis, and conditions, please refer to Applicants' application, dated February 16, 2023, which may be obtained via the Commission's website by searching for the file number at the top of this document, or for an Applicant using the Company name search field on the SEC's EDGAR system. The SEC's EDGAR system may be searched at *https://www.sec.gov/edgar/searchedgar/legacy/companysearch.html.* You may also call the SEC's Public Reference Room at (202) 551–8090.

For the Commission, by the Division of Investment Management, under delegated authority.

J. Matthew DeLesDernier,

Deputy Secretary.

[FR Doc. 2023–06432 Filed 3–28–23; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–97190; File No. SR–CboeBZX–2023–021]

Self-Regulatory Organizations; Cboe BZX Exchange, Inc.; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Update Its Fees Schedule

March 23, 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 March 16, 2023, Cboe BZX Exchange, Inc. (''Exchange'' or ''BZX'') filed with the Securities and Exchange Commission (''Commission'') the proposed rule change as described in Items I, II, and

[33] 17 CFR 200.30–3(a)(12).

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

Cboe BZX Exchange, Inc. (the ''Exchange'' or ''BZX'') proposes to update its Fees Schedule. The text of the proposed rule change is provided in Exhibit 5.

The text of the proposed rule change is also available on the Exchange's website (*http://markets.cboe.com/us/equities/regulation/rule_filings/bzx/*), 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 Exchange proposes to amend the Market Data section of its Fees Schedule.[3] Particularly, the Exchange proposes to (i) adopt a New External Credit applicable to BZX Options Top, (ii) adopt a credit towards the monthly Distribution fees for BZX Options Top, (iii) modify the BZX Options Top Enterprise Fee; and (iv) establish fees for Cboe One Options Feed.

BZX Top Data

By way of background, the Exchange offers the BZX Options Top Data feed, which is an uncompressed data feed that offers top-of-book quotations and last sale information based on options orders entered into the Exchange's System. The BZX Options Top Data feed benefits investors by facilitating their prompt access to real-time top-of-book information contained in BZX Options Top Data. The Exchange's affiliated options exchanges (*i.e.,* Cboe Exchange, Inc. (''Cboe Options''), Cboe C2 Exchange, Inc. (''C2 Options''), and Cboe EDGX Exchange, Inc. (''EDGX Options'') (collectively, ''Affiliates'') also offer similar top-of-book data feeds.[4] Particularly, each of the Exchange's Affiliates offer top-of-book quotation and last sale information based on their own quotation and trading activity that is substantially similar to the information provided by the Exchange through the BZX Options Top. The Exchange proposes to make the following fee changes relating to BZX Options Top.

New External Distributor Credit

The Exchange first proposes to adopt a New External Distributor Credit which will provide that new External Distributors of the BZX Options Top feed will not be charged an External Distributor Fee for their first three (3) months in order to incentivize External Distributors to enlist new users to receive BZX Options Top feed. The Exchange notes that other exchanges, including the Exchange's affiliated equities exchanges, offer similar credits for similar market data products. For example, Cboe's equities exchanges currently offer a three (3) month New External Distributor Credit applicable to External Distributors of their top-of-book data feeds.[5]

Distributor Fee Credit

The Exchange also proposes to provide that each External Distributor will receive a credit against its monthly Distributor Fee for the BZX Options Top equal to the amount of its monthly Usage Fees up to a maximum of the Distributor Fee for the BZX Options Top feed. For example, an External Distributor will be subject to a $2,000 monthly Distributor Fee where they elect to receive the BZX Options Top. If that External Distributor reports User quantities totaling $2,000 or more of monthly usage of the BZX Options Top, it will pay no net Distributor Fee, whereas if that same External Distributor were to report User quantities totaling $1,500 of monthly usage, it will pay a net of $500 for the Distributor Fee. External Distributors will remain subject to the per User fees applicable to BZX Options Top. In every case the Exchange will receive at least $2,000 in connection with the distribution of the BZX Options Top (through a combination of the External Distribution Fee and per User Fees). The Exchange notes that its affiliated equities exchanges offer a similar credit for a similar market data product.[6]

Enterprise Fee Tiers

The Exchange currently offers Distributors the ability to purchase a monthly (and optional) Enterprise license to receive the BZX Options Top Feed for distribution to an unlimited number of Professional and Non-Professional Users. The Enterprise Fee is an alternative to Professional and Non-Professional User fees and permits a Distributor to pay a flat fee for an unlimited number of Professional and Non-Professional Users and is in addition to the Distribution fees. The Exchange currently assesses an Enterprise fee of $20,000 per month. The Exchange proposes to modify the current Enterprise Fee and adopt a tiered structure based on the number of Users a Distributor has. The Exchange proposes to adopt the following monthly Enterprise Fees: $20,000 for up to 1,500,000 Users (Tier 1), $40,000 for 1,500,001 to 2,500,000 Users (Tier 2) and $60,000 for 2,500,001 or greater Users (Tier 3). The proposed fees are non-progressive (*e.g.,* if a Distributor has 2,000,000 Users, it will be subject to $40,000 for Tier 2). The Enterprise Fee may provide an opportunity to reduce fees. For example, if a Distributor has 1 million Non-Professional Users who each receive Cboe One Options Feed at $0.10 per month (as proposed), then that Distributor will pay $100,000 per month in Professional Users fees. If the Distributor instead were to purchase the proposed Enterprise license (tier 1), it would alternatively pay a flat fee of $20,000 for up to 1.5 million Professional and Non-Professional Users. A Distributor that pays the Tier 1 or Tier 2 Enterprise Fee will have to report its number of such Users on a monthly basis. A Distributor that pays the Tier 3 Enterprise Fee will only have to report the number of its Users every six months.[7] The Exchange notes that if the reported number of Users exceed the Enterprise Tier a Distributor has purchased, the higher Tier will apply (*e.g.,* if a Distributor purchases Tier 1, but reports 1,600,000 Users for a month,

[3] The Exchange initially filed the proposed fee changes on March 1, 2023 (SR–CboeBZX–2023–018). On March 3, 2023, the Exchange withdrew that filing and submitted SR–CboeBZX–2023–019. On March 16, 2023, the Exchange withdrew that filing and submitted this proposal.

[4] *See* Cboe Options Fees Schedule, C2 Options Fees Schedule, and EDGX Rule 21.15.

[5] *See e.g.,* EDGX Equities Exchange Fees Schedule, Market Data Fees.

[6] *See e.g.,* EDGX Equities Exchange Fees Schedule, Id.

[7] *See* Cboe Global Markets north American Data Policies.

the Distributor will be assessed the Tier 2 fee).

The Exchange also proposes to allow Distributors to purchase the Enterprise Fee on a monthly or annual basis. Annual licenses will receive a 5% discount off the applicable Enterprise Tier fee. The Exchange notes that the purchase of an Enterprise license is voluntary, and a firm may elect to instead use the per User structure and benefit from the proposed per User Fees described above. For example, a firm that does not have a sufficient number of Users to benefit from purchase of a license need not do so.

Cboe One Options Feed

By way of background, the Exchange recently adopted a new market data product called Cboe One Options Feed, which is launching March 1, 2023.[8] Cboe One Options Feed will provide top-of-book quotation and last sale information based on the quotation and trading activity on the Exchange and each of its Affiliates, which the Exchange believes offers a comprehensive and highly representative view of US options pricing to market participants. More specifically, Cboe One Options Feed will contain the aggregate best bid and offer (''BBO'') of all displayed orders for options traded on the Exchange and its Affiliates, as well as individual last sale information and volume, which includes the price, time of execution and individual Cboe options exchange on which the trade was executed.

The Cboe One Options Feed will also consist of Symbol Summary,[9] Market Status,[10] Trading Status,[11] and Trade Break [12] messages for the Exchange and each of its Affiliates.

The Exchange will use the following data feeds to create the Cboe One Options Feed, each of which is available to other vendors and/or distributors: Cboe Options Top Data, C2 Options Top Data, EDGX Options Top and BZX Options Top. A vendor and/or distributor that wishes to create a product like the Cboe One Options Feed could instead subscribe to each of the aforementioned data feeds. Any entity that receives, or elects to receive, the individual data feeds or the feeds that may be used to create a product like the Cboe One Options Feed would be able to, if it so chooses, to create a data feed with the same information included in the Cboe One Options Feed and sell and distribute it to its clients so that it could be received by those clients as quickly as the Cboe One Options Feed would be received by those same clients.

The Exchange proposes to amend its fee schedule to incorporate fees related to the Cboe One Options Feed. The Exchange has taken into consideration its affiliated relationship with its Affiliates in its design of the Cboe One Options Feed to assure that vendors [13] would be able to offer a similar product on the same terms as the Exchange from a cost perspective. Although Cboe Options Exchanges are the exclusive distributors of the individual data feeds from which certain data elements would be taken to create the Cboe One Options Feed, the Exchange would not be the exclusive distributor of the aggregated and consolidated information that compose the proposed Cboe One Options Feed. Distributors and/or vendors would be able, if they chose, to create a data feed with the same information as the Cboe One Options Feed and distribute it to their clients on a level-playing field with respect to latency and cost as compared to the Exchange's proposed Cboe One Options Feed. The pricing the Exchange proposes to charge for the Cboe One Options Feed, as described more fully below, is not lower than the cost to a distributor or vendor to obtain the underlying data feeds. In fact, the Distribution and User (Professional and Non-Professional) fees, as well as the optional Enterprise Fees, that the Exchange proposes to adopt for the Cboe One Options Feed are equal to the respective combined fees for subscribing to each individual data feed. The Exchange also proposes to adopt a ''Data Consolidation Fee,'' which would reflect the value of the aggregation and consolidation function the Exchange performs in creating the Cboe One Options Feed. Therefore, vendors would be enabled to create a competing product based on the individual data feeds and charge their clients a fee that they believe reflects the value of the aggregation and consolidation function that is competitive with Cboe One Options Feed pricing. For these reasons, the Exchange believes that vendors could readily offer a product similar to the Cboe One Options Feed on a competitive basis at a similar cost.

The proposed Cboe One Options Feed fees include the following, each of which are described in further detail below: (i) Distributor Fees; (ii) User Fees for both Professional and Non-Professional Users; (iii) Enterprise Fees; and (iv) a Data Consolidation Fee. The Exchange also proposes to adopt a New External Distributor credit and a credit against the monthly External Distribution Fee equal to the amount of monthly User Fees up to a maximum of the External Distributor Fee. To ensure consistency across the Cboe Options Exchanges, Cboe Options, EDGX Options, and C2 Options will be filing companion proposals to reflect this proposal in their respective fee schedules.

Distributor Fees

As proposed, each Internal Distributor that receives the Cboe One Options Feed shall pay a fee of $15,000 per month. The proposed Internal Distribution Fee equals the combined monthly Internal Distribution fees for the underlying individual data feeds of the Cboe Options Exchanges (*i.e.,* the monthly Internal Distribution fees are $3,000 for BZX Options Top, $500 for EDGX Options Top, $2,500 for C2 Options Top and $9,000 for Cboe Options Top). The Exchange also proposes to assess External Distributors a monthly fee of $10,000. The proposed External Distribution fee equals the combined monthly External Distribution fees for the underlying individual data feeds of the Cboe Options Exchanges (*i.e.,* the

[8] *See* SR–CboeBZX–2023–014.

[9] The Symbol Summary message will include the total executed volume across all Cboe Options Exchanges.

[10] The Market Status message is disseminated to reflect a change in the status of one of the Cboe Options Exchanges. For example, the Market Status message will indicate whether one of the Cboe Options Exchanges is experiencing a systems issue or disruption and quotation or trade information from that market is not currently being disseminated via the Cboe One Options Feed as part of the aggregated BBO. The Market Status message will also indicate when a Cboe Options Exchange is no longer experiencing a systems issue or disruption to properly reflect the status of the aggregated BBO.

[11] The Trade Break message will indicate when an execution on a Cboe Options Exchange is broken in accordance with the individual Cboe Options Exchange's rules (*e.g.,* Cboe Options Rule 6.5, C2 Option Rule 6.5, BZX Options Rule 20.6, EDGX Options Rule 20.6).

[12] The Trading Status message will indicate the current trading status of an option contract on each individual Cboe Options Exchange. A Trading Status message will also be sent whenever a security's trading status changes. For example, a Trading Status message will be sent when a symbol is open for trading or when a symbol is subject to a trading halt or when it resumes trading.

[13] For purposes of this filing, a ''vendor'', which is a type of distributor, will refer to any entity that receives an exchange market data product directly from the exchange or indirectly from another entity (for example, from an extranet) and then resell that data to a third-party customer (*e.g.,* a data provider that resells exchange market data to a retail brokerage firm). The term ''distributor'' herein, will refer to any entity that receives an exchange market data product, directly from the exchange or indirectly from another entity (*e.g.,* from a data vendor) and then distributes to individual internal or external end-users (*e.g.,* a retail brokerage firm who distributes exchange data to its individual employees and/or customers). An example of a vendor's ''third-party customer'' or ''customer'' is an institutional broker dealer or a retail broker dealer, who then may in turn distribute the data to their customers who are individual internal or external end-users.

monthly External Distribution fees are $5,000 per month for the Cboe Options Top, $2,500 per month for C2 Options Top, $2,000 per month for BZX Options Top, and $500 for EDGX Options Top). As noted above, the Exchange is proposing to charge External Distributors an External Distribution Fee that equals the combined External Distribution fees of each individual Top feed to ensure that vendors could compete with the Exchange by creating the same product as the Cboe One Options Feed to sell to their clients.

New External Distributor Credit

The Exchange proposes to adopt a New External Distributor Credit which would provide that new External Distributors of the Cboe One Options Feed will not be charged an External Distributor Fee for their first three (3) months in order to incentive them to enlist new Users to receive the Cboe One Options Feed. The Exchange notes that other exchanges, including the Exchange's affiliated equities exchanges offer similar credits for similar market data products. For example, Cboe's equities exchanges currently offer a three (3) month New External Distributor Credit applicable to Cboe One Summary Feed.[14] To alleviate any competitive issues that may arise with a vendor seeking to offer a product similar to the Cboe One Options Feed based on the underlying data feeds, the Exchange is proposing, as discussed above, to also adopt a three-month New External Distributor Credit for the underlying top-of-book data feeds for the Cboe Options Exchanges. The respective proposals to adopt a three-month credit ensures the proposed New External Distributor Credit for Cboe One Options will not cause the combined cost of subscribing to Cboe Options, C2 Options, BZX Options and EDGX Options Top feeds for new External Distributors to be greater than those that would be charged to subscribe to the Cboe One Options feed.

User Fees

In addition to Internal and External Distributor Fees, the Exchange proposes to assess Professional [15] User and Non-Professional [16] User Fees. The proposed monthly Professional User fee for the Cboe Options Exchanges is $30.50 per Professional User, which equals the combined monthly Professional User fees of the underlying individual Cboe Options Exchanges Top feeds (*i.e.,* $15.50 per Professional User for the Cboe Options Top, $5 per Professional User for C2 Options Top, $5 per Professional User for BZX Options Top, and $5 per Professional User for EDGX Options Top). The Exchange also proposes to adopt a monthly Non-Professional User fee of $0.60 per Non-Professional User which similarly represents the combined total Non-Professional User fee for the individual data feeds of the Cboe Options (*i.e.,* $0.30 per Non-Professional User for Cboe Options Top, $0.10 per Non-Professional User for C2 Options Top, $0.10 per Non-Professional User for BZX Options Top, and $0.10 per Non-Professional User for EDGX Options Top). Similar to the individual underlying feeds, Distributors that receive Cboe One Options Feed will be required to count Professional and Non-Professional Users to which they provide the data feed.

The Exchange also proposes to provide that each External Distributor will receive a credit against its monthly Distributor Fee for the Cboe One Feed equal to the amount of its monthly User Fees up to a maximum of the Distributor Fee for the Cboe One Options Feed. For example, an External Distributor will be subject to a $10,000 monthly Distributor Fee where they elect to receive the Cboe One Options Feed. If that External Distributor reports User quantities totaling $10,000 or more of monthly User fees of the Cboe Options One Feed, it will pay no net Distributor Fee, whereas if that same External Distributor were to report User quantities totaling $9,000 of monthly usage, it will pay a net of $1,000 for the Distributor Fee. External Distributors will remain subject to the per User fees discussed above. In every case the Exchange will receive at least $10,000 in connection with the distribution of the Cboe One Options Feed (through a combination of the External Distribution Fee and per User Fees). The Exchange notes that its affiliated equities exchanges offer a similar credit for a similar market data product.[17]

Enterprise Fees

The Exchange also proposes to establish Enterprise Fees that will permit a Distributor to purchase a monthly (and optional) Enterprise license to receive the Cboe One Options Feed for distribution to a specified number of Professional and Non-Professional Users. The Enterprise Fee will be an alternative to Professional and Non-Professional User fees and will permit a Distributor to pay a flat fee to receive the data for a specified number of Professional and Non-Professional Users, which the Exchange proposes to make clear in the Fee Schedule. Like User fees, the Enterprise Fee would be assessed in addition to the Distribution Fees. The Exchange proposes to adopt the following monthly Enterprise Fees: $350,000 for up to 1,500,000 Users (Tier 1), $550,000 for 1,500,001 to 2,500,000 Users (Tier 2) and $750,000 for 2,500,001 or greater Users (Tier 3). The proposed fees are non-progressive (*e.g.,* if a Distributor has 2,000,000 Users, it will be subject to $550,000 for Tier 2). The Enterprise Fee may provide an opportunity to reduce fees. For example, if a Distributor has 1 million Non-Professional Users who each receive Cboe One Options Feed at $0.60 per month (as proposed), then that Distributor will pay $600,000 per month in Professional Users fees. If the Distributor instead were to purchase the proposed Enterprise license (tier 1), it would alternatively pay a flat fee of $350,000 for up to 1.5 million Professional and Non-Professional Users. A Distributor must pay a separate Enterprise Fee for each entity that controls the display of Cboe One Options Feed if it wishes for such Users to be covered by an Enterprise Fee rather than by per User fees.[18] A Distributor that pays the Tier 1 or Tier 2 Enterprise Fee will have to report its number of such Users on a monthly basis. A Distributor that pays the Tier 3 Enterprise Fee will only have to report the number of its Users every six

[14] *See e.g.,* EDGX Equities Exchange Fees Schedule, Market Data Fees.

[15] A Professional User of an Exchange Market Data product is any natural person recipient of an Exchange Market Data product who is not a Non-Professional User.

[16] A ''Non-Professional User'' of an Exchange Market Data product is a natural person or qualifying trust that uses Data only for personal purposes and not for any commercial purpose and, for a natural person who works in the United States, is not: (i) registered or qualified in any capacity with the Securities and Exchange Commission, the Commodities Futures Trading Commission, any state securities agency, any securities exchange or association, or any commodities or futures contract market or association; (ii) engaged as an ''investment adviser'' as that term is defined in Section 202(a)(11) of the Investment Advisors Act of 1940 (whether or not registered or qualified under that Act); or (iii) employed by a bank or other organization exempt from registration under federal or state securities laws to perform functions that would require registration or qualification if such functions were performed for an organization not so exempt; or, for a natural person who works outside of the United States, does not perform the same functions as would disqualify such person as a Non-Professional User if he or she worked in the United States.

[17] *See e.g.,* EDGX Equities Exchange Fees Schedule, Market Data Fees.

[18] For example, if a Distributor that distributes BZX Options Top to Retail Brokerage Firm A and Retail Brokerage Firm B and wishes to have the Users under each firm covered by an Enterprise license, the Distributor would be subject to two Enterprise Fees.

months.[19] The Exchange notes that if the reported number of Users exceed the Enterprise Tier a Distributor has purchased, the higher Tier will apply (*e.g.,* if a Distributor purchases Tier 1, but reports 1,600,000 Users for a month, the Distributor will be assessed the Tier 2 fee).

The Exchange also proposes to allow Distributors to purchase the Enterprise Fee on a monthly or annual basis. Annual licenses will receive a 5% discount off the applicable Enterprise Fee tier. The Exchange notes that the purchase of an Enterprise license is voluntary, and a firm may elect to instead use the per User structure and benefit from the proposed per User Fees described above. For example, a firm that does not have a sufficient number of Users to benefit from purchase of a license need not do so.

Data Consolidation Fee

The Exchange also proposes to charge External Distributors of the Cboe One Options Feed a separate Data Consolidation Fee, which reflects the value of the aggregation and consolidation function the Exchange performs in creating the Cboe One Options Feed. As stated above, the Exchange creates the Cboe One Options Feed from data derived from the Cboe Options Top, C2 Options Top, BZX Options Top, and EDGX Options Top Feeds. External Distributors could similarly create a competing product to the Cboe One Options Feed based on these individual data feeds, or, alternatively, the applicable Top and Last Sale products offered by the Exchanges, and could charge its clients a fee that it believes reflects the value of the aggregation and consolidation function. Accordingly, the Exchange believes that vendors could readily offer a product similar to the Cboe One Options Feed on a competitive basis at a similar cost.

2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with the objectives of Section 6 of the Act,[20] in general, and furthers the objectives of Section 6(b)(4),[21] in particular, as it is designed to provide for the equitable allocation of reasonable dues, fees and other charges among its members and other recipients of Exchange data. In addition, the Exchange believes that the proposed rule change is consistent with Section 11(A) of the Act as it supports (i) fair competition among brokers and dealers, among exchange markets, and between exchange markets and markets other than exchange markets, and (ii) the availability to brokers, dealers, and investors of information with respect to quotations for and transactions in securities.[22] Finally, the proposed rule change is also consistent with Rule 603 of Regulation NMS,[23] which provides that any national securities exchange that distributes information with respect to quotations for or transactions in an NMS stock do so on terms that are not unreasonably discriminatory.

The Exchange first notes that it operates in a highly competitive environment. Indeed, there are currently 16 registered options exchanges that trade options. Based on publicly available information, no single options exchange has more than 17% of the market share.[24] The Exchange believes top-of-book quotation and transaction data is highly competitive as national securities exchanges compete vigorously with each other to provide efficient, reliable, and low-cost data to a wide range of investors and market participants. Indeed, there are several competing products offered by other national securities exchanges today, not counting products offered by the Exchange's affiliates, and each of the Exchange's affiliated U.S. options exchanges also offers similar top-of-book data.[25] Each of those exchanges offer top-of-book quotation and last sale information based on their own quotation and trading activity that is substantially similar to the information provided by the Exchange through the BZX Options Top Data Feed. Further, the quote and last sale data contained in the BZX Data Feed is identical to the data sent to OPRA for redistribution to the public.[26] Accordingly, Exchange top-of-book data is widely available today from a number of different sources.

Moreover, the BZX Options Top Data Feed and Cboe One Options Feeds are distributed and purchased on a voluntary basis, in that neither the Exchange nor market data distributors are required by any rule or regulation to make these data products available. Accordingly, Distributors (including vendors) and Users can discontinue use at any time and for any reason, including due to an assessment of the reasonableness of fees charged. Further, the Exchange is not required to make any proprietary data products available or to offer any specific pricing alternatives to any customers. Moreover, persons (including broker-dealers) who subscribe to any exchange proprietary data feed must also have equivalent access to consolidated Options Information[27] from OPRA for the same classes or series of options that are included in the proprietary data feed, and proprietary data feeds cannot be used to meet that particular requirement.[28] As such, all proprietary data feeds are optional.

The Commission has repeatedly expressed its preference for competition over regulatory intervention in determining prices, products, and services in the securities markets. Particularly, in Regulation NMS, the Commission highlighted the importance of market forces in determining prices and SRO revenues and, also, recognized that current regulation of the market system ''has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.'' [29] Making similar data products available to market participants fosters competition in the marketplace, and constrains the ability of exchanges to charge supracompetitive fees. In the event that a market participant views one exchange's data product as more or less attractive than the competition they can and do switch between similar products. The proposed fees are a result of the competitive environment, as the Exchange seeks to adopt fees to attract

[19] *See* Cboe Global Markets north American Data Policies.

[20] 15 U.S.C. 78f.

[21] 15 U.S.C. 78f(b)(4).

[22] 15 U.S.C. 78k–1.

[23] *See* 17 CFR 242.603.

[24] *See* Cboe Global Markets U.S. Options Market Month-to-Date Volume Summary (February 23, 2024), available at *https://markets.cboe.com/us/options/market_statistics/.*

[25] *See e.g.,* NYSE Arca Options Proprietary Market Data Fees Schedule, MIAX Options Exchange, Fee Schedule, Section 6 (Market Data Fees), Nasdaq PHLX Options 7 Pricing Schedule, Section 10 (Proprietary Data Feed Fees) and Cboe Data Services, LLC Fees Schedule.

[26] The Exchange makes available the top-of-book data and last sale data that is included in the BZX Options Top Data Feed no earlier than the time at which the Exchange sends that data to OPRA.

[27] ''Consolidated Options Information'' means consolidated Last Sale Reports combined with either consolidated Quotation Information or the BBO furnished by OPRA. Access to consolidated Options Information is deemed ''equivalent'' if both kinds of information are equally accessible on the same terminal or work station. See Limited Liability Company Agreement of Options Price Reporting Authority, LLC (''OPRA Plan''), Section 5.2(c)(iii). The Exchange notes that this requirement under the OPRA Plan is also reiterated under the Cboe Global Markets Global Data Agreement and Cboe Global Markets North American Data Policies, which subscribers to any exchange proprietary product must sign and are subject to, respectively. Additionally, the Exchange's Data Order Form (used for requesting the Exchange's market data products) requires confirmation that the requesting market participant receives data from OPRA.

[28] *Id.*

[29] *See* Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37496, 37499 (June 29, 2005) (''Regulation NMS Adopting Release'').

purchasers of BZX Options Top Data and Cboe One Options Feed.

The Exchange has also taken into consideration its affiliated relationship with its Affiliates in its design of the Cboe One Options Feed to ensure that vendors would be able to offer a similar product on the same terms as the Exchange from a cost perspective. While the Cboe Options Exchanges are the exclusive distributors of the individual data feeds from which certain data elements may be taken to create the Cboe One Options Feed, they are not the exclusive distributors of the aggregated and consolidated information that comprises the Cboe One Options Feed. Any entity that receives, or elects to receive, the individual data feeds would be able to, if it so chooses, to create a data feed with the same information included in the Cboe One Options Feed and sell and distribute it to its clients so that it could be received by those clients as quickly as the Cboe One Options Feed would be received by those same clients with no greater cost than the Exchange.

In addition, vendors and Distributors that do not wish to purchase the Cboe One Options Feed may separately purchase the individual underlying products, and if they so choose, perform a similar aggregation and consolidation function that the Exchange performs in creating the Cboe One Options Feed. To enable such competition, the Exchange is offering the Cboe One Options Feed on terms that a vendor of those underlying feeds could offer a competing product if it so chooses.

In addition, the fees that are the subject of this rule filing are constrained by competition. Particularly, the Exchange competes with other exchanges (and their affiliates) that may choose to offer similar market data products. If another exchange (or its affiliate) were to charge less to consolidate and distribute a similar product than the Exchange charges to consolidate and distribute the Cboe One Options Feed, prospective Users likely could choose to not subscribe to, or would cease subscribing to, the Cboe One Options Feed. In addition, the Exchange would compete with unaffiliated market data vendors who would be in a position to consolidate and distribute the same data that comprises the Cboe One Options Feed into the vendor's own comparable market data product. If the third-party vendor is able to provide the exact same data for a lower cost, prospective Users would avail themselves of that lower cost and elect not to take the Cboe One Options Feed.

For these reasons, the Exchange believes that the proposed fees are reasonable, equitable, and not unfairly discriminatory.

User Fees. The Exchange believes that the proposed Professional and Non-Professional User fees for the Cboe One Options Feed are reasonable because they represent the combined monthly fees for Professional and Non-Professional User fees, respectively for the underlying individual data feeds, which have previously been filed with the Commission. The Exchange believes that the proposed fees are equitable and not unfairly discriminatory because they will be charged uniformly to Distributors. Moreover, the proposed fee structure of differentiated Professional and Non-Professional fees that are paid by both Internal and External Distributors has long been used by other exchanges, including the Exchange, for their proprietary data products, and by the OPRA plan in order to reduce the price of data to retail investors and make it more broadly available.[30] The Exchange also believes offering Cboe One Options Feed to Non-Professional Users at a lower cost than Professional Users results in greater equity among data recipients, as Professional Users are categorized as such based on their employment and participation in financial markets, and thus, are compensated to participate in the markets. Although Non-Professional Users too can receive significant financial benefits through their participation in the markets, the Exchange believes it is reasonable to charge more to those Users who are more directly engaged in the markets.

Enterprise Fee. The Exchange believes the proposed Enterprise Fees for the Cboe One Options Feed and proposed changes to the Enterprise Fee for the BZX Options Top feed are reasonable as the fees proposed could result in a fee reduction for Distributors of the respective products with a large number of Professional and Non-Professional Users. If a Distributor has a smaller number of Professional Users of the Cboe One Options Feed, then it may continue using the per User structure and benefit from the per User Fee reductions. By reducing prices for Distributors with a large number of Professional and Non-Professional Users, the Exchange believes that more firms may choose to receive and to distribute the Cboe One Options Feed, thereby expanding the distribution of this market data for the benefit of investors. Also as described above, the Enterprise Fees are entirely optional. A firm that does not have a sufficient number of Users to benefit from purchase of a license need not do so.

Distributor Fees. The Exchange believes that the proposed Distributor fees for the Cboe One Options Feed are reasonable because they represent the combined monthly fees for Internal and External Distributor fees, respectively for the underlying individual data feeds, which have previously been filed with the Commission. The Exchange believes that the proposed fees are equitable and not unfairly discriminatory because they will be charged uniformly to Internal and External Distributors. The Exchange believes that it is also fair and equitable, and not unfairly discriminatory to charge different fees for internal and external distribution of the Cboe One Options Feed. Although the proposed distribution fee charged to External Distributors will be lower than the existing distribution fee charged to Internal Distributors, External Distributors are subject to Non-Professional user fees to which Internal Distributors are not subject, in addition to Professional User fees (or alternatively the proposed Enterprise Fee). Furthermore, the proposal is designed to incentivize External Distributors to subscribe to Cboe One Options Feed.

The proposed Distributor Fees for the Cboe One Options Feed are also designed to ensure that vendors could compete with the Exchange by creating a similar product as the Cboe One Options Feed. The Exchange believes that the proposed Distributor Fees are equitable and reasonable as they equal the combined fee of subscribing to each individual data feed of the Cboe Options Exchanges, which have been previously published by the Commission.

In addition, the Exchange believes it is reasonable to not charge External Distributors of BZX Options Top and Cboe One Options Feed a Distribution Fee during their first three (3) months and does not believe this would inhibit a vendor from creating a competing product and offer a similar free period as the Exchange. Specifically, a vendor seeking to create the Cboe One Options Feed could do so by subscribing to the underlying individual data feeds, all of which will also include a New External

[30] *See, e.g.,* Securities Exchange Act Release No. 59544 (March 9, 2009), 74 FR 11162 (March 16, 2009) (SR–NYSE–2008–131) (establishing the $15 Non-Professional User Fee (Per User) for NYSE OpenBook); *See, e.g.,* Securities Exchange Act Release No. 67589 (August 2, 2012), 77 FR 47459 (August 8, 2012) (revising OPRA's definition of the term ''Nonprofessional''); and *See* Securities Exchange Act Release No. 70683 (October 15, 2013), 78 FR 62798 (October 22, 2013) (SR–CBOE–2013–087) (establishing Professional and Non-Professional User fees for Cboe Options COB Data Feed).

Distributor Credit identical to that proposed for the Cboe One Options Feed. As a result, a competing vendor would incur similar costs as the Exchange in offering such free period for a competing product and may do so on the same terms as the Exchange.

Data Consolidation Fee. The Exchange believes that the proposed $500 per month Data Consolidation Fee charged to Distributors who receive the Cboe One Options Feed is reasonable because it represents the value of the data aggregation and consolidation function that the Exchange performs. The Exchange further believes the proposed Data Consolidation Fee is not designed to permit unfair discrimination because all Distributor who obtain the Cboe One Options Feed will be charged the same fee. The increased cost of the Cboe One Options Feed is designed to include the value of the aggregation and consolidation function the Exchange performs in creating the Cboe One Options Feed. Therefore, the Exchange believes the proposed application of the Data Consolidation Fee is reasonable would not permit unfair discrimination.

In addition, a vendor could create a competing product based on the individual data feeds and charge its clients a fee that it believes reflects the value of the aggregation and consolidation function that is competitive with the Cboe One Options Feed pricing. Therefore, the Exchange believes the proposed pricing would enable a vendor to create a competing product based on the individual data feeds and charge its clients a fee that it believes reflects the value of the aggregation and consolidation function that is competitive with Cboe One Options Feed pricing.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange 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. The Exchange operates in a highly competitive environment, and its ability to price top-of-book data is constrained by competition among exchanges that offer similar data products to their customers. Top-of-book data is broadly disseminated by competing U.S. options exchanges and through OPRA. In this competitive environment potential Distributors are free to choose which competing product to purchase to satisfy their respective needs for market information. Often, the choice comes down to price, as market data participants look to purchase cheaper data products, and quality, as market participants seek to purchase data that represents significant market liquidity.

The Exchange believes that the proposed fees do not impose a burden on competition or on other SROs that is not necessary or appropriate in furtherance of the purposes of the Act. In particular, market participants are not forced to subscribe to BZX Options Top, Cboe One Options Feed or any of the Exchange's data feeds, as described above. As noted, the quote and last sale data contained in the Exchange's BZX Options Top feed is identical to the data sent to OPRA for redistribution to the public. Accordingly, Exchange top-of-book data is widely available today from a number of different sources.

The Exchange believes that the proposed fees do not put any market participants at a relative disadvantage compared to other market participants. As discussed, the proposed waiver, credits and Enterprise Fees would apply to all similarly situated Distributors of BZX Options Top on an equal and non-discriminatory basis. Because market data customers can find suitable substitute feeds, an exchange that overprices its market data products stands a high risk that users may substitute another product. These competitive pressures ensure that no one exchange's market data fees can impose an undue burden on competition, and the Exchange's proposed fees do not do so here.

Additionally, the Cboe One Options Feed will enhance competition because it provides investors with an alternative option for receiving market data. Although the Cboe Options Exchanges are the exclusive distributors of the individual data feeds from which certain data elements would be taken to create the Cboe One Options Feed, the Exchange would not be the exclusive distributor of the aggregated and consolidated information that would compose the proposed Cboe One Options Feed. Any entity that receives, or elects to received, the underlying data feeds would be able to, if it so chooses, to create a data feed with the same information included in the Cboe One Options Feed and sell and distribute it to its clients so that it could be received by those clients as quickly as the Cboe One Options Feed would be received by those same clients and at a similar cost.

The proposed pricing the Exchange would charge for the Cboe One Options Feed compared to the cost of the individual data feeds from the Cboe Options Exchanges would enable a vendor to receive the underlying individual data feeds and offer a similar product on a competitive basis and with no greater cost than the Exchange. The pricing the Exchange proposes to charge for the Cboe One Options Feed is not lower than the cost to a vendor of receiving the underlying data feeds. Indeed, the proposed pricing equals the combined costs of the respective fees, and the proposed waivers are also being proposed for the underlying individual feeds as well, thereby enabling a vendor to receive the underlying data feeds and offer a similar product on a competitive basis and with no greater cost than the Exchange.

The Exchange further believes that its proposed monthly Data Consolidation Fee would be pro-competitive because a vendor could create a competing product, perform a similar aggregating and consolidating function, and similarly charge for such service. The Exchange notes that a competing vendor might engage in a different analysis of assessing the cost of a competing product. For these reasons, the Exchange believes the proposed pricing, fee waiver and credit, would enable a vendor to create a competing product based on the individual data feeds and charge its clients a fee that it believes reflects the value of the aggregation and consolidation function that is competitive with Cboe One Options Feed pricing.

In establishing the proposed fees, the Exchange considered the competitiveness of the market for proprietary data and all of the implications of that competition. The Exchange believes that it has considered all relevant factors and has not considered irrelevant factors in order to establish fair, reasonable, and not unreasonably discriminatory fees and an equitable allocation of fees among all users. The existence of alternatives to the Cboe One Options Feed, including the existing underlying feeds and data from other sources, such as OPRA, constrains the Exchange from setting unreasonable fees, or fees that are unreasonably discriminatory, when vendors and Distributors can elect these alternatives or choose not to purchase a specific proprietary data product if its cost to purchase is not justified by the returns any particular vendor or Distributor would achieve through the purchase.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

The Exchange has not solicited, and does not intend to solicit, comments on this proposed rule change. The Exchange has not received any written

comments from members or other interested parties.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A) of the Act [31] and paragraph (f) of Rule 19b–4 [32] thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission will 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 (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–CboeBZX–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–CboeBZX–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 (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–CboeBZX–2023–021 and should be submitted on or before April 19, 2023.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[33]

J. Matthew DeLesDernier,

Deputy Secretary.

[FR Doc. 2023–06426 Filed 3–28–23; 8:45 am]

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[31] 15 U.S.C. 78s(b)(3)(A).

[32] 17 CFR 240.19b–4(f).

[33] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–97193; File No. 4–698]

Joint Industry Plan; Order Approving an Amendment to the National Market System Plan Governing the Consolidated Audit Trail

March 24, 2023.

I. Introduction

On September 8, 2022, the Operating Committee for Consolidated Audit Trail, LLC (''CAT LLC''), on behalf of the following parties to the National Market System Plan Governing the Consolidated Audit Trail (the ''CAT NMS Plan''): [1] BOX Exchange LLC, Cboe BYX Exchange, Inc., Cboe BZX Exchange, Inc., Cboe EDGA Exchange, Inc., Cboe EDGX Exchange, Inc., Cboe C2 Exchange, Inc., Cboe Exchange, Inc., Financial Industry Regulatory Authority, Inc., Investors Exchange LLC, Long-Term Stock Exchange, Inc., Miami International Securities Exchange LLC, MEMX LLC, MIAX Emerald, LLC, MIAX PEARL, LLC, Nasdaq BX, Inc., Nasdaq GEMX, LLC, Nasdaq ISE, LLC, Nasdaq MRX, LLC, Nasdaq PHLX LLC, The NASDAQ Stock Market LLC, New York Stock Exchange LLC, NYSE American LLC, NYSE Arca, Inc., NYSE Chicago, Inc., and NYSE National, Inc. (collectively, the ''Participants'' or ''SROs'') filed with the Securities and Exchange Commission (''Commission'') pursuant to Section 11A(a)(3) of the Exchange Act,[2] and Rule 608 thereunder,[3] a proposed amendment (''Proposed Amendment'') to the CAT NMS Plan that would authorize CAT LLC to revise the Consolidated Audit Trail Reporter Agreement (''Reporter Agreement'') and the Consolidated Audit Trail Reporter Agent Agreement (''Reporter Agent Agreement'' and collectively with the Reporter Agreement, the ''Reporter Agreements'') by: (1) removing the arbitration provision from each agreement and replacing it with a forum selection provision (the ''Forum Selection Provision'') which would require that any dispute regarding CAT reporting be filed in a United States District Court for the Southern District of New York (the ''SDNY''), or, in the absence of federal subject matter jurisdiction, a New York State Supreme Court within the First Judicial Department; and (2) revising the existing choice of law clause to provide that any dispute will be governed by federal law (in addition to New York law) (the ''Choice of Law Provision'').[4] The proposed plan amendment was published for comment in the **Federal Register** on September 28, 2022.[5] On December 22, 2022, the Commission instituted proceedings to determine whether to approve or disapprove the Proposed Amendment.[6] This order approves the Proposed Amendment.

II. Background

On July 11, 2012, the Commission adopted Rule 613 of Regulation NMS, which required the SROs to submit a

[1] The CAT NMS Plan is a national market system plan approved by the Commission pursuant to Section 11A of the Securities Exchange Act of 1934 (''Exchange Act'') and the rules and regulations thereunder. *See* Securities Exchange Act Release No. 79318 (Nov. 15, 2016), 81 FR 84696 (Nov. 23, 2016). The CAT NMS Plan functions as the limited liability company agreement of the jointly owned limited liability company (''CAT LLC'') formed under Delaware state law through which the Participants conduct the activities of the CAT. On August 29, 2019, the Participants replaced the CAT NMS Plan in its entirety with the limited liability company agreement of a new limited liability company named Consolidated Audit Trail, LLC. The latest version of the CAT NMS Plan is available at *https://catnmsplan.com/about-cat/cat-nms-plan.*

[2] 15 U.S.C 78k–1(a)(3).

[3] 17 CFR 242.608.

[4] *See* Letter from Michael Simon, Chair, CAT NMS Plan Operating Committee, to Vanessa Countryman, Secretary, Commission, dated September 8, 2022.

[5] *See* Notice of Filing of Amendment to the National Market System Plan Governing the Consolidated Audit Trail, Securities Exchange Act Release No. 95874 (Sept. 22, 2022), 87 FR 58876 (''Notice''). The Commission received no comments on the Proposed Amendment.

[6] *See* Securities Exchange Act Release No. 96568, 87 FR 80204 (Dec. 29, 2022).

national market system (''NMS'') plan to create, implement and maintain a consolidated audit trail (the ''CAT'' or ''CAT System'') that would capture customer and order event information for orders in NMS securities.[7] On November 15, 2016, the Commission approved the CAT NMS Plan.[8] On August 29, 2019, the Operating Committee for CAT LLC approved a Reporter Agreement and a Reporter Agent Agreement that would limit the total liability of CAT LLC, the Participants and the Plan Processor to a CAT Reporter[9] for any calendar year to the lesser of the total of fees paid by the CAT Reporter to CAT LLC for the calendar year in which the claim arose or five hundred dollars. The Reporter Agreements also included a mandatory arbitration provision. The Participants required each Industry Member[10] to execute a CAT Reporter Agreement prior to reporting data to CAT. On April 22, 2020, prior to the commencement of initial equities reporting for Industry Members, the Securities Industry and Financial Markets Association (''SIFMA'') filed, pursuant to Sections 19(d) and 19(f) of the Exchange Act, an application for review of actions taken by CAT LLC and the Participants (the ''Administrative Proceedings''). SIFMA alleged that by requiring Industry Members to execute the Reporter Agreement as a prerequisite to submitting data to the CAT, the Participants improperly prohibited or limited SIFMA members with respect to access to the CAT System in violation of the Exchange Act.[11] On May 13, 2020, the Participants and SIFMA reached a settlement and terminated the Administrative Proceedings, allowing Industry Members to report data to the CAT pursuant to Reporter Agreements that do not contain a limitation of liability provision. Since that time, Industry Members have been transmitting data to the CAT.[12]

On December 18, 2020, the Participants proposed to amend the CAT NMS Plan to authorize CAT LLC to revise the Reporter Agreements to insert limitation of liability provisions that would: (1) provide that CAT Reporters and CAT reporting agents accept sole responsibility for their access to and use of the CAT System, and that CAT LLC makes no representations or warranties regarding the CAT System or any other matter; (2) limit the liability of CAT LLC, the Participants, and their respective representatives to any individual CAT Reporter or CAT reporting agent to the lesser of the fees actually paid to CAT for the calendar year or five hundred dollars; (3) exclude all direct and indirect damages; and (4) provide that CAT LLC, the Participants, and their respective representatives shall not be liable for the loss or corruption of any data submitted by a CAT Reporter or CAT reporting agent to the CAT System (the ''Limitation of Liability Amendment'').[13] On October 29, 2021, the Commission disapproved the Limitation of Liability Amendment.[14]

On May 20, 2022, the Participants proposed to amend the CAT NMS Plan to authorize CAT LLC to revise the Reporter Agreements to insert limitation of liability provisions that would: (1) replace the arbitration provisions in the agreement with a forum selection provision, which would require the parties to the Reporter Agreements to bring any action in the SDNY, or, if there is no basis for federal subject matter jurisdiction, in the New York State Supreme Court within the First Judicial Department and, if it is permitted, seek assignment to the Commercial Division; (2) revise the governing law provision to provide that the governing law for all disputes will be United States federal law and the laws of the state of New York; (3) include a provision requiring the parties to the Reporter Agreements to waive their right to a jury trial, with no exception; (4) include a provision stating that CAT LLC and the Plan Processor disclaim any, and make no, representations or warranties, regarding the CAT System or any other matter pertaining to the Reporter Agreements, including any representation or warranty relating to merchantability, quality, fitness for a particular purpose, compliance with applicable laws, non-infringement, title, and sequencing, timeliness, accuracy or completeness of information.[15] On September 6, 2022, prior to the end of the 90-day period provided for in Exchange Act Rule 608(b)(2)(i),[16] the Participants withdrew that proposed amendment.[17]

III. Description of the Proposal

The Participants now propose to amend the CAT NMS Plan to authorize CAT LLC to revise the Reporter Agreements by: (1) removing the arbitration provision from each agreement and replacing it with the Forum Selection Provision, which would require that any dispute regarding CAT reporting be filed in the SDNY, or, in the absence of federal subject matter jurisdiction, a New York State Supreme Court within the First Judicial Department; and (2) revising the existing choice of law clause to provide that any dispute will be governed by federal law (in addition to New York law).[18]

In support of the Forum Selection Provision, the Participants believe that a

[7] 17 CFR 242.613.

[8] *See supra* note 1.

[9] CAT Reporter means each national securities exchange, national securities association and Industry Member that is required to record and report information to the Central Repository pursuant to SEC Rule 613(c). *See* CAT NMS Plan at Section 1.1.

[10] Industry Member means a member of a national securities exchange or a member of a national securities association. *See* CAT NMS Plan at Section 1.1.

[11] *See* Notice, *supra* note 5, at 58877.

[12] For a more detailed description of the background for the Proposed Amendment, *see* Notice, *supra* note 5, at 58876–78. *See also* Notice of Filing of Amendment to the National Market System Plan Governing the Consolidated Audit Trail, Securities Exchange Act Release No. 90826 (Dec. 30, 2020), 86 FR 591 (Jan. 6, 2021).

[13] *See* Limitation of Liability Amendment, 86 FR at 593. The Commission received comments objecting to the proposal on the grounds that it is unfair for Industry Members to be liable for breaches because the Participants control the CAT System, insulating the Participants from liability would result in the Participants de-prioritizing security, and that it would be inappropriate to effectively prohibit Industry Members from pursuing claims against CAT LLC and the Participants even in cases where they engage in willful misconduct, gross negligence, bad faith, or criminal acts. The Commission also received two response letters from the Participants. Comments received in response to the Limitation of Liability Amendment can be found at *https://www.sec.gov/comments/4-698/4-698.htm.*

[14] *See* Securities Exchange Act Release No. 93484 (Oct. 29, 2021), 86 FR 60933 (Nov. 4, 2021) (''Limitation of Liability Disapproval Order'').

[15] *See* Notice of Filing of Amendment to the National Market System Plan Governing the Consolidated Audit Trail, Securities Exchange Act Release No. 95031 (Jun. 3, 2022), 87 FR 35273. Comments received in response to the proposal can be found at *https://www.sec.gov/comments/4-698/4-698-b.htm.* The Commission received comments objecting to the disclaimer of warranties provision, arguing, among other things, that the disclaimer of warranties provision functions as a limitation of liability provision, would disincentivize investment in adequate security for the CAT system, and that Participants should not be able to disclaim warranties and representations regarding the CAT System, which they operate and control. One commenter also objected to the jury waiver provision stating that every case is different, and while some cases might present complicated legal and factual issues that are best resolved by judges, other cases might present simpler and more straightforward issues that are better suited for a jury trial. *See* Letter from Ellen Greene, Managing Director, Equity and Options Market Structure, and Kevin M. Carroll, Managing Director and Associate General Counsel, Office of General Counsel, SIFMA, to Vanessa Countryman, Secretary, dated June 30, 2022, *available at https://www.sec.gov/comments/4-698/4698-20133896-303830.pdf,* at 3. The Commission received one comment letter on the proposal that did not relate to the substance of the proposal.

[16] 17 CFR 242.608(b)(2)(i).

[17] *See* Securities Exchange Act Release No. 96102 (Oct. 19, 2022), 87 FR 64294 (Oct. 24, 2022).

[18] *See* Notice, *supra* note 5, at 58876.

court is the proper forum to resolve claims concerning CAT reporting, including claims relating to potential technical issues, system failures, and data breaches.[19] The Participants state that litigating in court is appropriate to address claims, which likely will involve regulatory issues, including the doctrine of regulatory immunity,[20] and complex legal and factual issues involved in cyber litigation.[21] The Participants state that litigating in court would allow parties to rely on precedent that has been developed to address those issues when resolving disputes that could potentially involve parties seeking substantial damages.[22]

The Participants state that courts offer important procedural mechanisms that would help resolve claims related to CAT reporting fairly and efficiently.[23] The Participants state that adjudicating disputes in the courts would permit consolidation and joinder of claims, as federal and New York State rules of civil procedure provide mechanisms for consolidation and joinder, as well as permit the use of class actions for certain disputes.[24] The Participants state that in arbitration, in contrast, the ultimate decision on consolidation is made by the arbitrator.[25] Further, the Participants state that the AAA Commercial Arbitration rules are silent on joinder, and parties have faced complications in joining parties to an arbitration claim when they are non-signatories, which could be significant since claims arising out of CAT reporting might be related incidents that impact Industry Members and other market participants (*e.g.,* retail investors).[26] The Participants state that for those reasons, if the arbitration provisions remain in the Reporter Agreements, cases arising out of the same facts or involving the same legal issues might result in different outcomes and damage awards, and potentially create inconsistent rules.[27]

The Participants further state that adjudicating claims related to CAT in court provides parties with appellate rights and rules governing the discovery process and admissibility of evidence.[28] They state that direct appellate review is largely absent in arbitration and that the rules relating to discovery and evidence are more limited.[29]

As for the forum itself, the Participants state that the SDNY and the New York State Supreme Court are venues with extensive experience adjudicating matters involving federal securities laws, market structure, and cybersecurity.[30] The Participants state that the Second Circuit, and the SDNY, have experience with securities and financial regulation matters, data breaches and cybersecurity incidents, and have authored opinions regarding the scope of regulatory immunity.[31] The Participants also state that New York State courts also focus on complex cases and have addressed the scope of regulatory immunity.[32] They state that New York is a convenient venue for the parties since the two largest securities exchanges, several Participants, and the most prominent Industry Members by trading volume are located in New York.[33]

The Participants state that they are modifying the governing law provision, which currently states that disputes arising out of the Reporter Agreements will be governed by New York State law, to clarify that they will be governed by both federal law and New York State law.[34] The Participants state that the reason for this change is that such claims could involve issues of federal law because CAT LLC was created pursuant to federal law and is subject to a federal regulatory regime.[35]

The Participants propose to implement the Proposed Amendment by making the revised CAT Reporter Agreements effective upon Commission approval of the Proposed Amendment, without requiring CAT Reporters and CAT reporting agents to re-sign the agreements.[36] The Commission understands that the Participants will require future CAT Reporters to sign revised CAT Reporter Agreements that include the Forum Selection Provision and the Choice of Law Provision prior to reporting to the CAT.

IV. Discussion

A. The Applicable Standard of Review

Under Rule 608(b)(2) of Regulation NMS, the Commission shall approve a national market system plan or proposed amendment to an effective national market system plan, with such changes or subject to such conditions as the Commission may deem necessary or appropriate, if it finds that such plan or amendment is necessary or appropriate in the public interest, for the protection of investors and the maintenance of fair and orderly markets, to remove impediments to, and perfect the mechanisms of, a national market system, or otherwise in furtherance of the purposes of the Exchange Act.[37] Under Rule 700(b)(3)(ii) of the Commission's Rules of Practice, the ''burden to demonstrate that a NMS plan filing is consistent with the Exchange Act and the rules and regulations issued thereunder that are applicable to NMS plans is on the plan participants that filed the NMS plan filing.'' [38] The Commission shall disapprove a national market system plan or proposed amendment if it does not make such a finding.[39]

For the reasons described below, the Commission believes that the Proposed Amendment is consistent with Rule 608 of Regulation NMS, and is necessary or appropriate in the public interest, for the protection of investors and the maintenance of fair and orderly markets, to remove impediments to, and perfect

[19] *Id.* at 58878. The Participants note that in the aftermath of high-profile data breaches, plaintiffs have brought common law claims of breach of contract and negligence as well as claims based on various federal statutes including the Stored Communications Act, the Federal Wiretap Act, and the Computer Fraud and Abuse Act. *Id.*

[20] *Id.* at 58879. The Participants note that comments letters in connection with the limitation of liability amendment ''demonstrated an assumption and understanding that'' assessments of immunity would be decided by the courts. *Id.*

[21] *See id.* at 58879. The Participants state that assessing potential defenses will likely require a tribunal to resolve complex issues that implicate the Participants' status as self-regulatory organizations and the Commission's oversight of the CAT. *Id.* at 58878.

[22] *Id.* at 58879. The Participants also state that litigating disputes in court would promote the development of precedent to guide Industry Members' and Participants' conduct. *Id.*

[23] *See id.* at 58876.

[24] *Id.* at 58878–79.

[25] *Id.* at 58879.

[26] *Id.*

[27] *Id.*

[28] *Id.* at 58879–80.

[29] *Id.*

[30] *Id.* at 58880–81.

[31] *Id.*

[32] *Id.*

[33] *Id.* The Participants note that the existing Reporter Agreements are governed by New York law and provide that any claim must be commenced in New York (*i.e.,* in the current arbitration provision). They also note that all dates and times referenced in the Reporter Agreements are set to New York time. *Id.*

[34] *Id.* at 58881.

[35] *Id.* The Participants proposed that ''[t]he Operating Committee shall have authority in its sole discretion to make non-substantive amendments to the forum selection provision and governing law provision in the Consolidated Audit Trail Reporter Agreement and the Consolidated Audit Trail Reporting Agent Agreement.'' *Id.* at 58882.

[36] *Id.* No commenters disputed the proposal's assertion that the amendments would be effective without re-signing.

[37] 17 CFR 242.608(b)(2).

[38] 17 CFR 201.700(b)(3)(ii). ''Any failure of the plan participants that filed the NMS plan filing to provide such detail and specificity may result in the Commission not having a sufficient basis to make an affirmative finding that a NMS plan filing is consistent with the Exchange Act and the rules and regulations issued thereunder that are applicable to NMS plans.'' *Id.*

[39] 17 CFR 242.608(b)(2). ''Approval or disapproval of a national market system plan, or an amendment to an effective national market system plan (other than an amendment initiated by the Commission), shall be by order.'' *Id.*

the mechanisms of, a national market system, or otherwise in furtherance of the purposes of the Exchange Act.[40]

B. Forum Selection Provision

The Commission believes it is appropriate for the Participants to amend the CAT NMS Plan to require the CAT Reporter Agreements to provide that the courts, instead of arbitration, be the forum to resolve claims regarding the CAT Reporter Agreements. In the Proposed Amendments, the Participants reasonably identified several potential benefits of litigation. As the Participants note, certain potential claims arising out of CAT reporting, including technical issues, system failures, and data breaches, are likely to impact multiple parties, and requiring arbitration may result in actions involving the same common questions of law or fact or arising out of the same occurrence being brought piecemeal and lead to inconsistent outcomes.[41] Resolving such claims through litigation may allow for the consolidation and/or joinder of claims, and class actions depending on the nature of any claims that arise, which could lead to more efficient and fair resolution of potential disputes.[42] In addition, issues of regulatory immunity may arise in some disputes and resolving those disputes through litigation would also allow for resolution of those issues through the application of precedent that has been developed by the courts.[43] At the same time, the Commission recognizes that there are advantages to arbitration, which is used throughout the securities industry and in some circumstances may offer a quicker and less costly way to resolve disputes. Nonetheless, in the context of the Proposed Amendment before us for consideration, the Commission believes that there are reasonable grounds for choosing to resolve potential claims arising out of CAT reporting through litigation in court rather than arbitration, and particularly in light of the lack of any commenter objection to the Proposed Amendment, the Participants' choice to mandate that such disputes be resolved through court litigation rather than mandate that they be resolved through arbitration is appropriate.[44]

The Commission also believes that the Participants' proposal to amend the CAT NMS Plan to designate the SDNY and, in the absence of federal subject matter jurisdiction, New York state courts, in the Forum Selection Provision is appropriate. The Participants identify reasonable grounds for those choices. As the Participants observe, both the SDNY and New York state courts provide for robust rules and procedures relating to consolidation, joinder, class actions, discovery, and direct appellate review. As stated by the Participants ''the SDNY routinely handles complicated securities matters with broad implications for the national financial markets,'' and the Second Circuit in particular has significant experience determining the rights and remedies of parties following data breaches. Further, both the Second Circuit and New York state courts have addressed the scope of regulatory immunity, an issue that could arise in any disputes in light of the Participants' status as self-regulatory organizations.[45] The Commission also notes that no commenters objected to the Participants' choice.

For the reasons noted above, the Commission believes that the Participants' proposal to amend the CAT NMS Plan to authorize CAT LLC to modify the CAT Reporter Agreements to include the Forum Selection Provision is appropriate in the public interest, for the protection of investors and the maintenance of fair and orderly markets, and to remove impediments to, and perfect the mechanisms of, a national market system or otherwise in furtherance of the purposes of the Exchange Act.[46]

C. Governing Law Provision

The Commission believes it is reasonable for the Reporter Agreements to provide that any matters between CAT LLC and either a CAT Reporter or a CAT Reporting Agent, will be governed by federal law and the laws of the State of New York, instead of just by the laws of the State of New York. The Commission agrees with the Participants' assertion that because CAT LLC was created pursuant to federal law, claims between Participants and other parties, including CAT Reporters and Industry Members, could involve issues of federal and not just state law.[47] The Proposed Amendment thus reasonably specifies that both sources of law would apply. For that reason, the Commission believes that this aspect of the proposal is appropriate in the public interest, for the protection of investors and the maintenance of fair and orderly markets, to remove impediments to, and perfect the mechanisms of, a national market system or otherwise in furtherance of the purposes of the Exchange Act.[48]

V. Impact on Efficiency, Competition, and Capital Formation

In determining whether to approve a proposed amendment, and whether such amendment is in the public interest, Rule 613 requires the Commission to consider the potential effects of the proposed amendment on efficiency, competition and capital formation.[49] The Commission has reviewed the arguments about such effects put forth by the Participants and independently analyzed the likely effects of the Proposed Amendment on efficiency, competition, and capital formation. The Commission received no comment letters addressing the economic impact of the Proposed Amendment. The Commission believes that the Forum Selection Provision could modestly improve efficiency and competition, and that the Proposed Amendment will otherwise have no material impact on efficiency, competition, and capital formation.

A. Efficiency

The Commission believes the Forum Selection Provision could modestly reduce potential inefficiencies in dispute resolution regarding the CAT Reporter Agreements. As discussed above,[50] the Forum Selection Provision requires that any dispute regarding CAT reporting be filed in the SDNY, or, in the absence of federal subject matter jurisdiction, a New York State Supreme Court within the First Judicial Department. Court mechanisms for consolidating claims, joinder of claims, and class actions may facilitate coordination among the possibly large number of parties impacted by technical issues, system failures, and data breaches and reduce some legal costs involved in dispute resolution. The precedent generated by disputes resolved through courts may also slightly reduce aggregate legal costs by minimizing the need for the adjudicator and litigants to completely reevaluate recurring legal issues every time that

[40] 17 CFR 242.608(b)(2).

[41] Notice, *supra* note 5, at 58878–79.

[42] *Id.*

[43] *Id.* at 58879.

[44] The Participants proposed that ''[t]he Operating Committee shall have authority in its sole discretion to make non-substantive amendments to the forum selection provision and governing law provision in the Consolidated Audit Trail Reporter Agreement and the Consolidated Audit Trail Reporting Agent Agreement.'' *Id.* at 58882. It is the Commission's understanding that a non-substantive amendment is one that does not affect the rights or obligations of any parties, including a CAT Reporter or the Commission. Accordingly, the Commission does not believe this provision is inconsistent with the Exchange Act.

[45] *Id.* at 58880–81.

[46] 17 CFR 242.608(b)(2).

[47] Notice, *supra* note 5, at 58881.

[48] 17 CFR 242.608(b)(2).

[49] 17 CFR 242.613(a)(5).

[50] *See* Section IV.A, *supra.*

they arise. However, these potential reductions in aggregate legal costs and information technology costs may be partially offset by increases in legal costs for disputes that involve individual CAT Reporters and CAT LLC. Legal costs for these bilateral disputes may increase because resolution via arbitration can incur fewer legal costs than resolution via courts.[51]

The Commission believes the Governing Law would not affect efficiency because it does not produce a substantive change in the application of the federal laws of the United States and the laws of the state of New York to legal matters involving CAT LLC and CAT Reporters.

B. Competition

The Commission believes the Forum Selection Provision will have small positive effects on competition within markets with businesses subject to CAT Reporter Agreements. The Forum Selection Provision, via courts' mechanisms for dispute consolidation, may reduce individual firms' legal expenses during disputes with CAT LLC because dispute related legal costs may then be shared by multiple parties. If these legal expenses are shared approximately equally among involved firms, then small firms may benefit slightly more from courts' mechanisms for dispute consolidation than large firms because legal costs will decrease more as a fraction of revenue for small firms than large firms. But, the benefits of dispute consolidation for small firms may be partially reduced by greater legal costs for bilateral disputes with CAT LLC where legal costs cannot be shared by several CAT Reporters and resolution via arbitration may require lower legal costs.[52] The Forum Selection Provision may also make the outcomes of disputes between CAT Reporters and CAT LLC slightly more predictable because legal precedent and previous court cases may provide information regarding disputes possible outcomes. Less uncertainty about the outcomes of disputes involving CAT LLC and CAT Reporters may slightly reduce financing costs for firms by reducing uncertainty about the effect of dispute resolution outcomes on small firms' profitability. The reduction in financing costs may be greater for smaller firms where the effects of disputes' outcomes may have relatively large effects on these firms' profitability.

The Commission believes the Governing Law Provision will not materially affect competition because requiring federal law and the laws of the state of New York to govern all matters between the CAT LLC and the CAT Reporters will not have an economically significant effect on the legal costs, or legal outcomes, or other factors that might affect competition among businesses subject to CAT Reporter Agreements.

C. Capital Formation

The Commission believes the Forum Selection Provision and Governing Law Provision will not materially affect capital formation. The proposed amendment relates to dispute resolution between Industry Members and Participants and is thus unlikely to materially impact capital formation because the proposed amendment does not generally affect publicly traded firms' cost of capital, does not affect factors influencing investors' investments in publicly traded companies, and the previously discussed potential efficiency and competition benefits of the proposed amendment are too small in magnitude to affect the prices at which CAT Reporters offer trading services and products to investors.

VI. Conclusion

For the reasons set forth above, the Commission finds that the Proposed Amendment is consistent with the requirements of the Exchange Act and the rules and regulations thereunder, and in particular, Section 11A of the Exchange Act,[53] and Rule 608(b)(2)[54] thereunder in that the Proposed Amendment is appropriate in the public interest, for the protection of investors and the maintenance of fair and orderly markets, to remove impediments to, and perfect the mechanisms of a national market system, or otherwise in furtherance of the purposes of the Exchange Act.

It is therefore ordered, pursuant to Section 11A of the Exchange Act,[55] and Rule 608(b)(2) thereunder,[56] that the Proposed Amendment (File No. 4–698) be, and hereby is, approved.

By the Commission.

Sherry R. Haywood,

Assistant Secretary.

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[51] *See* Section IV.A, *supra.*

[52] *See id.*

[53] 15 U.S.C. 78k–1.

[54] 17 CFR 242.608(b)(2).

[55] 15 U.S.C. 78k–1.

[56] 17 CFR 242.608.

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–97189; File No. SR–CBOE–2023–015]

Self-Regulatory Organizations; Cboe Exchange, Inc.; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Update Its Fees Schedule

March 23, 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 March 10, 2023, Cboe Exchange, Inc. (''Exchange'' or ''Cboe Options'') filed with the Securities and Exchange Commission (''Commission'') the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

Cboe Exchange, Inc. (the ''Exchange'' or ''Cboe Options'') proposes to update its Fees Schedule. The text of the proposed rule change is provided in Exhibit 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.

[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

The Exchange proposes to amend the Market Data section of its Fees Schedule.[3] Particularly, the Exchange proposes to (i) adopt a New External Credit applicable to Cboe Options Top, (ii) adopt a credit towards the monthly Distribution fees for Cboe Options Top, (iii) modify the Cboe Options Top Enterprise Fee; and (iv) establish fees for Cboe One Options Feed.

Cboe Top Data

By way of background, the Exchange offers the Cboe Options Top Data feed, which is an uncompressed data feed that offers top-of-book quotations and last sale information based on options orders entered into the Exchange's System. The Cboe Options Top Data feed benefits investors by facilitating their prompt access to real-time top-of-book information contained in Cboe Options Top Data. The Exchange's affiliated options exchanges (*i.e.,* Cboe C2 Exchange, Inc. (''C2 Options''), Cboe BZX Exchange, Inc. (''BZX Options''), and Cboe EDGX Exchange, Inc. (''EDGX Options'') (collectively, ''Affiliates'') also offer similar top-of-book data feeds.[4] Particularly, each of the Exchange's Affiliates offer top-of-book quotation and last sale information based on their own quotation and trading activity that is substantially similar to the information provided by the Exchange through the Cboe Options Top. The Exchange proposes to make the following fee changes relating to Cboe Options Top.

New External Distributor Credit

The Exchange first proposes to adopt a New External Distributor Credit which will provide that new External Distributors of the Cboe Options Top feed will not be charged an External Distributor Fee for their first three (3) months in order to incentivize External Distributors to enlist new users to receive Cboe Options Top feed. The Exchange notes that other exchanges, including the Exchange's affiliated equities exchanges, offer similar credits for similar market data products. For example, Cboe's equities exchanges currently offer a three (3) month New External Distributor Credit applicable to External Distributors of their top-of-book data feeds.[5]

Distributor Fee Credit

The Exchange also proposes to provide that each External Distributor will receive a credit against its monthly Distributor Fee for the Cboe Options Top equal to the amount of its monthly Usage Fees up to a maximum of the Distributor Fee for the Cboe Options Top feed. For example, an External Distributor will be subject to a $9,000 monthly Distributor Fee where they elect to receive the Cboe Options Top. If that External Distributor reports User quantities totaling $9,000 or more of monthly usage of the Cboe Options Top, it will pay no net Distributor Fee, whereas if that same External Distributor were to report User quantities totaling $8,000 of monthly usage, it will pay a net of $1,000 for the Distributor Fee. External Distributors will remain subject to the per User fees applicable to Cboe Options Top. In every case the Exchange will receive at least $9,000 in connection with the distribution of the Cboe Options Top (through a combination of the External Distribution Fee and per User Fees). The Exchange notes that its affiliated equities exchanges offer a similar credit for a similar market data product.[6]

Enterprise Fee Tiers

The Exchange currently offers Distributors the ability to purchase a monthly (and optional) Enterprise license to receive the Cboe Options Top Feed for distribution to an unlimited number of Professional and Non-Professional Users. The Enterprise Fee is an alternative to Professional and Non-Professional User fees and permits a Distributor to pay a flat fee for an unlimited number of Professional and Non-Professional Users and is in addition to the Distribution fees. The Exchange currently assesses an Enterprise fee of $300,000 per month. The Exchange proposes to modify the current Enterprise Fee and adopt a tiered structure based on the number of Users a Distributor has. The Exchange proposes to adopt the following monthly Enterprise Fees: $300,000 for up to 1,500,000 Users (Tier 1), $450,000 for 1,500,001 to 2,500,000 Users (Tier 2) and $600,000 for 2,500,001 or greater Users (Tier 3). The proposed fees are non-progressive (*e.g.,* if a Distributor has 2,000,000 Users, it will be subject to $450,000 for Tier 2). The Enterprise Fee may provide an opportunity to reduce fees. For example, if a Distributor has 1.4 million Non-Professional Users who each receive Cboe One Options Feed at $0.30 per month (as proposed), then that Distributor will pay $420,000 per month in Professional Users fees. If the Distributor instead were to purchase the proposed Enterprise license (tier 1), it would alternatively pay a flat fee of $300,000 for up to 1.5 million Professional and Non-Professional Users. A Distributor that pays the Tier 1 or Tier 2 Enterprise Fee will have to report its number of such Users on a monthly basis. A Distributor that pays the Tier 3 Enterprise Fee will only have to report the number of its Users every six months.[7] The Exchange notes that if the reported number of Users exceed the Enterprise Tier a Distributor has purchased, the higher Tier will apply (*e.g.,* if a Distributor purchases Tier 1, but reports 1,600,000 Users for a month, the Distributor will be assessed the Tier 2 fee).

The Exchange also proposes to allow Distributors to purchase the Enterprise Fee on a monthly or annual basis. Annual licenses will receive a 5% discount off the applicable Enterprise Tier fee. The Exchange notes that the purchase of an Enterprise license is voluntary, and a firm may elect to instead use the per User structure and benefit from the proposed per User Fees described above. For example, a firm that does not have a sufficient number of Users to benefit from purchase of a license need not do so.

Cboe One Options Feed

By way of background, the Exchange recently adopted a new market data product called Cboe One Options Feed, which is launching March 1, 2023.[8] Cboe One Options Feed will provide top-of-book quotation and last sale information based on the quotation and trading activity on the Exchange and each of its Affiliates, which the Exchange believes offers a comprehensive and highly representative view of US options pricing to market participants. More specifically, Cboe One Options Feed will contain the aggregate best bid and offer (''BBO'') of all displayed orders for options traded on the Exchange and its Affiliates, as well as individual last sale information and volume, which includes the price, time of execution and individual Cboe options exchange on which the trade was executed. See

[3] The Exchange initially filed the proposed fee changes on March 1, 2023 (SR–CBOE–2023–014). On March 10, 2023, the Exchange withdrew that filing and submitted this proposal.

[4] *See* C2 Options Fees Schedule, EDGX Rule 21.15, and BZX Rule 21.15.

[5] *See e.g.,* EDGX Equities Exchange Fees Schedule, Market Data Fees.

[6] *See e.g.,* EDGX Equities Exchange Fees Schedule, Id.

[7] *See* Cboe Global Markets north American Data Policies.

[8] *See* SR–CBOE–2023–012.

e.g., EDGX Equities Exchange Fees Schedule, Market Data Fees.

The Cboe One Options Feed will also consist of Symbol Summary,[9] Market Status,[10] Trading Status,[11] and Trade Break [12] messages for the Exchange and each of its Affiliates.

The Exchange will use the following data feeds to create the Cboe One Options Feed, each of which is available to other vendors and/or distributors: Cboe Options Top Data, C2 Options Top Data, EDGX Options Top and BZX Options Top. A vendor and/or distributor that wishes to create a product like the Cboe One Options Feed could instead subscribe to each of the aforementioned data feeds. Any entity that receives, or elects to receive, the individual data feeds or the feeds that may be used to create a product like the Cboe One Options Feed would be able to, if it so chooses, to create a data feed with the same information included in the Cboe One Options Feed and sell and distribute it to its clients so that it could be received by those clients as quickly as the Cboe One Options Feed would be received by those same clients.

The Exchange proposes to amend its fee schedule to incorporate fees related to the Cboe One Options Feed. The Exchange has taken into consideration its affiliated relationship with its Affiliates in its design of the Cboe One Options Feed to assure that vendors [13] would be able to offer a similar product on the same terms as the Exchange from a cost perspective. Although Cboe Options Exchanges are the exclusive distributors of the individual data feeds from which certain data elements would be taken to create the Cboe One Options Feed, the Exchange would not be the exclusive distributor of the aggregated and consolidated information that compose the proposed Cboe One Options Feed. Distributors and/or vendors would be able, if they chose, to create a data feed with the same information as the Cboe One Options Feed and distribute it to their clients on a level-playing field with respect to latency and cost as compared to the Exchange's proposed Cboe One Options Feed. The pricing the Exchange proposes to charge for the Cboe One Options Feed, as described more fully below, is not lower than the cost to a distributor or vendor to obtain the underlying data feeds. In fact, the Distribution and User (Professional and Non-Professional) fees, as well as the optional Enterprise Fees, that the Exchange proposes to adopt for the Cboe One Options Feed are equal to the respective combined fees for subscribing to each individual data feed. The Exchange also proposes to adopt a ''Data Consolidation Fee,'' which would reflect the value of the aggregation and consolidation function the Exchange performs in creating the Cboe One Options Feed. Therefore, vendors would be enabled to create a competing product based on the individual data feeds and charge their clients a fee that they believe reflects the value of the aggregation and consolidation function that is competitive with Cboe One Options Feed pricing. For these reasons, the Exchange believes that vendors could readily offer a product similar to the Cboe One Options Feed on a competitive basis at a similar cost.

The proposed Cboe One Options Feed fees include the following, each of which are described in further detail below: (i) Distributor Fees; (ii) User Fees for both Professional and Non-Professional Users; (iii) Enterprise Fees; and (iv) a Data Consolidation Fee. The Exchange also proposes to adopt a New External Distributor credit and a credit against the monthly External Distribution Fee equal to the amount of monthly User Fees up to a maximum of the External Distributor Fee. To ensure consistency across the Cboe Options Exchanges, C2 Options, EDGX Options, and BZX Options will be filing companion proposals to reflect this proposal in their respective fee schedules.

Distributor Fees

As proposed, each Internal Distributor that receives the Cboe One Options Feed shall pay a fee of $15,000 per month. The proposed Internal Distribution Fee equals the combined monthly Internal Distribution fees for the underlying individual data feeds of the Cboe Options Exchanges (*i.e.,* the monthly Internal Distribution fees are $3,000 for BZX Options Top, $500 for EDGX Options Top, $2,500 for C2 Options Top and $9,000 for Cboe Options Top). The Exchange also proposes to assess External Distributors a monthly fee of $10,000. The proposed External Distribution fee equals the combined monthly External Distribution fees for the underlying individual data feeds of the Cboe Options Exchanges (*i.e.,* the monthly External Distribution fees are $5,000 per month for the Cboe Options Top, $2,500 per month for C2 Options Top, $2,000 per month for BZX Options Top, and $500 for EDGX Options Top). As noted above, the Exchange is proposing to charge External Distributors an External Distribution Fee that equals the combined External Distribution fees of each individual Top feed to ensure that vendors could compete with the Exchange by creating the same product as the Cboe One Options Feed to sell to their clients.

New External Distributor Credit

The Exchange proposes to adopt a New External Distributor Credit which would provide that new External Distributors of the Cboe One Options Feed will not be charged an External Distributor Fee for their first three (3) months in order to incentive them to enlist new Users to receive the Cboe One Options Feed. The Exchange notes that other exchanges, including the Exchange's affiliated equities exchanges offer similar credits for similar market data products. For example, Cboe's equities exchanges currently offer a three (3) month New External Distributor Credit applicable to Cboe One Summary Feed.[14] To alleviate any competitive issues that may arise with a vendor seeking to offer a product similar to the Cboe One Options Feed

[9] The Symbol Summary message will include the total executed volume across all Cboe Options Exchanges.

[10] The Market Status message is disseminated to reflect a change in the status of one of the Cboe Options Exchanges. For example, the Market Status message will indicate whether one of the Cboe Options Exchanges is experiencing a systems issue or disruption and quotation or trade information from that market is not currently being disseminated via the Cboe One Options Feed as part of the aggregated BBO. The Market Status message will also indicate when a Cboe Options Exchange is no longer experiencing a systems issue or disruption to properly reflect the status of the aggregated BBO.

[11] The Trade Break message will indicate when an execution on a Cboe Options Exchange is broken in accordance with the individual Cboe Options Exchange's rules (*e.g.,* Cboe Options Rule 6.5, C2 Option Rule 6.5, BZX Options Rule 20.6, EDGX Options Rule 20.6).

[12] The Trading Status message will indicate the current trading status of an option contract on each individual Cboe Options Exchange. A Trading Status message will also be sent whenever a security's trading status changes. For example, a Trading Status message will be sent when a symbol is open for trading or when a symbol is subject to a trading halt or when it resumes trading.

[13] For purposes of this filing, a ''vendor'', which is a type of distributor, will refer to any entity that receives an exchange market data product directly from the exchange or indirectly from another entity (for example, from an extranet) and then resell that data to a third-party customer (*e.g.,* a data provider that resells exchange market data to a retail brokerage firm). The term ''distributor'' herein, will refer to any entity that receives an exchange market data product, directly from the exchange or indirectly from another entity (*e.g.,* from a data vendor) and then distributes to individual internal or external end-users (*e.g.,* a retail brokerage firm who distributes exchange data to its individual employees and/or customers). An example of a vendor's ''third-party customer'' or ''customer'' is an institutional broker dealer or a retail broker dealer, who then may in turn distribute the data to their customers who are individual internal or external end-users.

[14] *See e.g.,* EDGX Equities Exchange Fees Schedule, Market Data Fees.

based on the underlying data feeds, the Exchange is proposing, as discussed above, to also adopt a three-month New External Distributor Credit for the underlying top-of-book data feeds for the Cboe Options Exchanges. The respective proposals to adopt a three-month credit ensures the proposed New External Distributor Credit for Cboe One Options will not cause the combined cost of subscribing to Cboe Options, C2 Options, BZX Options and EDGX Options Top feeds for new External Distributors to be greater than those that would be charged to subscribe to the Cboe One Options feed.

User Fees

In addition to Internal and External Distributor Fees, the Exchange proposes to assess Professional [15] User and Non-Professional [16] User Fees. The proposed monthly Professional User fee for the Cboe Options Exchanges is $30.50 per Professional User, which equals the combined monthly Professional User fees of the underlying individual Cboe Options Exchanges Top feeds (*i.e.,* $15.50 per Professional User for the Cboe Options Top, $5 per Professional User for C2 Options Top, $5 per Professional User for BZX Options Top, and $5 per Professional User for EDGX Options Top). The Exchange also proposes to adopt a monthly Non-Professional User fee of $0.60 per Non-Professional User, which similarly represents the combined total Non-Professional User fee for the individual data feeds of the Cboe Options (*i.e.,* $0.30 per Non-Professional User for Cboe Options Top, $0.10 per Non-Professional User for C2 Options Top, $0.10 per Non-Professional User for BZX Options Top, and $0.10 per Non-Professional User for EDGX Options Top). Similar to the individual underlying feeds, Distributors that receive Cboe One Options Feed will be required to count Professional and Non-Professional Users to which they provide the data feed.

The Exchange also proposes to provide that each External Distributor will receive a credit against its monthly Distributor Fee for the Cboe One Feed equal to the amount of its monthly User Fees up to a maximum of the Distributor Fee for the Cboe One Options Feed. For example, an External Distributor will be subject to a $10,000 monthly Distributor Fee where they elect to receive the Cboe One Options Feed. If that External Distributor reports User quantities totaling $10,000 or more of monthly User fees of the Cboe Options One Feed, it will pay no net Distributor Fee, whereas if that same External Distributor were to report User quantities totaling $9,000 of monthly usage, it will pay a net of $1,000 for the Distributor Fee. External Distributors will remain subject to the per User fees discussed above. In every case the Exchange will receive at least $10,000 in connection with the distribution of the Cboe One Options Feed (through a combination of the External Distribution Fee and per User Fees). The Exchange notes that its affiliated equities exchanges offer a similar credit for a similar market data product.[17]

Enterprise Fees

The Exchange also proposes to establish Enterprise Fees that will permit a Distributor to purchase a monthly (and optional) Enterprise license to receive the Cboe One Options Feed for distribution to a specified number of Professional and Non-Professional Users. The Enterprise Fee will be an alternative to Professional and Non-Professional User fees and will permit a Distributor to pay a flat fee to receive the data for a specified number of Professional and Non-Professional Users, which the Exchange proposes to make clear in the Fee Schedule. Like User fees, the Enterprise Fee would be assessed in addition to the Distribution Fees. The Exchange proposes to adopt the following monthly Enterprise Fees: $350,000 for up to 1,500,000 Users (Tier 1), $550,000 for 1,500,001 to 2,500,000 Users (Tier 2) and $750,000 for 2,500,001 or greater Users (Tier 3). The proposed fees are non-progressive (*e.g.,* if a Distributor has 2,000,000 Users, it will be subject to $550,000 for Tier 2). The Enterprise Fee may provide an opportunity to reduce fees. For example, if a Distributor has 1 million Non-Professional Users who each receive Cboe One Options Feed at $0.60 per month (as proposed), then that Distributor will pay $600,000 per month in Professional Users fees. If the Distributor instead were to purchase the proposed Enterprise license (tier 1), it would alternatively pay a flat fee of $350,000 for up to 1.5 million Professional and Non-Professional Users. A Distributor must pay a separate Enterprise Fee for each entity that controls the display of Cboe One Options Feed if it wishes for such Users to be covered by an Enterprise Fee rather than by per User fees.[18] A Distributor that pays the Tier 1 or Tier 2 Enterprise Fee will have to report its number of such Users on a monthly basis. A Distributor that pays the Tier 3 Enterprise Fee will only have to report the number of its Users every six months.[19] The Exchange notes that if the reported number of Users exceed the Enterprise Tier a Distributor has purchased, the higher Tier will apply (*e.g.,* if a Distributor purchases Tier 1, but reports 1,600,000 Users for a month, the Distributor will be assessed the Tier 2 fee).

The Exchange also proposes to allow Distributors to purchase the Enterprise Fee on a monthly or annual basis. Annual licenses will receive a 5% discount off the applicable Enterprise Fee tier. The Exchange notes that the purchase of an Enterprise license is voluntary, and a firm may elect to instead use the per User structure and benefit from the proposed per User Fees described above. For example, a firm that does not have a sufficient number of Users to benefit from purchase of a license need not do so.

Data Consolidation Fee

The Exchange also proposes to charge External Distributors of the Cboe One Options Feed a separate Data Consolidation Fee, which reflects the value of the aggregation and consolidation function the Exchange performs in creating the Cboe One Options Feed. As stated above, the Exchange creates the Cboe One Options Feed from data derived from the Cboe Options Top, C2 Options Top, BZX Options Top, and EDGX Options Top Feeds. External Distributors could

[15] A Professional User of an Exchange Market Data product is any natural person recipient of an Exchange Market Data product who is not a Non-Professional User.

[16] A ''Non-Professional User'' of an Exchange Market Data product is a natural person or qualifying trust that uses Data only for personal purposes and not for any commercial purpose and, for a natural person who works in the United States, is not: (i) registered or qualified in any capacity with the Securities and Exchange Commission, the Commodities Futures Trading Commission, any state securities agency, any securities exchange or association, or any commodities or futures contract market or association; (ii) engaged as an ''investment adviser'' as that term is defined in Section 202(a)(11) of the Investment Advisors Act of 1940 (whether or not registered or qualified under that Act); or (iii) employed by a bank or other organization exempt from registration under federal or state securities laws to perform functions that would require registration or qualification if such functions were performed for an organization not so exempt; or, for a natural person who works outside of the United States, does not perform the same functions as would disqualify such person as a Non-Professional User if he or she worked in the United States.

[17] *See e.g.,* EDGX Equities Exchange Fees Schedule, Market Data Fees.

[18] For example, if a Distributor that distributes Cboe Options Top to Retail Brokerage Firm A and Retail Brokerage Firm B and wishes to have the Users under each firm covered by an Enterprise license, the Distributor would be subject to two Enterprise Fees.

[19] *See* Cboe Global Markets north American Data Policies.

similarly create a competing product to the Cboe One Options Feed based on these individual data feeds, or, alternatively, the applicable Top and Last Sale products offered by the Exchanges, and could charge its clients a fee that it believes reflects the value of the aggregation and consolidation function. Accordingly, the Exchange believes that vendors could readily offer a product similar to the Cboe One Options Feed on a competitive basis at a similar cost.

2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with the objectives of Section 6 of the Act,[20] in general, and furthers the objectives of Section 6(b)(4),[21] in particular, as it is designed to provide for the equitable allocation of reasonable dues, fees and other charges among its members and other recipients of Exchange data. In addition, the Exchange believes that the proposed rule change is consistent with Section 11(A) of the Act as it supports (i) fair competition among brokers and dealers, among exchange markets, and between exchange markets and markets other than exchange markets, and (ii) the availability to brokers, dealers, and investors of information with respect to quotations for and transactions in securities.[22] Finally, the proposed rule change is also consistent with Rule 603 of Regulation NMS,[23] which provides that any national securities exchange that distributes information with respect to quotations for or transactions in an NMS stock do so on terms that are not unreasonably discriminatory.

The Exchange first notes that it operates in a highly competitive environment. Indeed, there are currently 16 registered options exchanges that trade options. Based on publicly available information, no single options exchange has more than 17% of the market share.[24] The Exchange believes top-of-book quotation and transaction data is highly competitive as national securities exchanges compete vigorously with each other to provide efficient, reliable, and low-cost data to a wide range of investors and market participants. Indeed, there are several competing products offered by other national securities exchanges today, not counting products offered by the Exchange's affiliates, and each of the Exchange's affiliated U.S. options exchanges also offers similar top-of-book data.[25] Each of those exchanges offer top-of-book quotation and last sale information based on their own quotation and trading activity that is substantially similar to the information provided by the Exchange through the Cboe Options Top Data Feed. Further, the quote and last sale data contained in the Cboe Data Feed is identical to the data sent to OPRA for redistribution to the public.[26] Accordingly, Exchange top-of-book data is widely available today from a number of different sources.

Moreover, the Cboe Options Top Data Feed and Cboe One Options Feeds are distributed and purchased on a voluntary basis, in that neither the Exchange nor market data distributors are required by any rule or regulation to make these data products available. Accordingly, Distributors (including vendors) and Users can discontinue use at any time and for any reason, including due to an assessment of the reasonableness of fees charged. Further, the Exchange is not required to make any proprietary data products available or to offer any specific pricing alternatives to any customers. Moreover, persons (including broker-dealers) who subscribe to any exchange proprietary data feed must also have equivalent access to consolidated Options Information[27] from OPRA for the same classes or series of options that are included in the proprietary data feed, and proprietary data feeds cannot be used to meet that particular requirement.[28] As such, all proprietary data feeds are optional.

The Commission has repeatedly expressed its preference for competition over regulatory intervention in determining prices, products, and services in the securities markets. Particularly, in Regulation NMS, the Commission highlighted the importance of market forces in determining prices and SRO revenues and, also, recognized that current regulation of the market system ''has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.'' [29] Making similar data products available to market participants fosters competition in the marketplace, and constrains the ability of exchanges to charge supracompetitive fees. In the event that a market participant views one exchange's data product as more or less attractive than the competition they can and do switch between similar products. The proposed fees are a result of the competitive environment, as the Exchange seeks to adopt fees to attract purchasers of Cboe Options Top Data and Cboe One Options Feed.

The Exchange has also taken into consideration its affiliated relationship with its Affiliates in its design of the Cboe One Options Feed to ensure that vendors would be able to offer a similar product on the same terms as the Exchange from a cost perspective. While the Cboe Options Exchanges are the exclusive distributors of the individual data feeds from which certain data elements may be taken to create the Cboe One Options Feed, they are not the exclusive distributors of the aggregated and consolidated information that comprises the Cboe One Options Feed. Any entity that receives, or elects to receive, the individual data feeds would be able to, if it so chooses, to create a data feed with the same information included in the Cboe One Options Feed and sell and distribute it to its clients so that it could be received by those clients as quickly as the Cboe One Options Feed would be received by those same clients with no greater cost than the Exchange.

In addition, vendors and Distributors that do not wish to purchase the Cboe One Options Feed may separately purchase the individual underlying products, and if they so choose, perform a similar aggregation and consolidation function that the Exchange performs in creating the Cboe One Options Feed. To enable such competition, the Exchange is offering the Cboe One Options Feed on terms that a vendor of those

[20] 15 U.S.C. 78f.

[21] 15 U.S.C. 78f(b)(4).

[22] 15 U.S.C. 78k–1.

[23] *See* 17 CFR 242.603.

[24] *See* Cboe Global Markets U.S. Options Market Month-to-Date Volume Summary (February 23, 2024), available at *https://markets.cboe.com/us/options/market_statistics/*.

[25] *See e.g.,* NYSE Arca Options Proprietary Market Data Fees Schedule, MIAX Options Exchange, Fee Schedule, Section 6 (Market Data Fees), Nasdaq PHLX Options 7 Pricing Schedule, Section 10 (Proprietary Data Feed Fees) and Cboe Data Services, LLC Fees Schedule.

[26] The Exchange makes available the top-of-book data and last sale data that is included in the Cboe Options Top Data Feed no earlier than the time at which the Exchange sends that data to OPRA.

[27] ''Consolidated Options Information'' means consolidated Last Sale Reports combined with either consolidated Quotation Information or the BBO furnished by OPRA. Access to consolidated Options Information is deemed ''equivalent'' if both kinds of information are equally accessible on the same terminal or work station. See Limited Liability Company Agreement of Options Price Reporting Authority, LLC (''OPRA Plan''), Section 5.2(c)(iii). The Exchange notes that this requirement under the OPRA Plan is also reiterated under the Cboe Global Markets Global Data Agreement and Cboe Global Markets North American Data Policies, which subscribers to any exchange proprietary product must sign and are subject to, respectively. Additionally, the Exchange's Data Order Form (used for requesting the Exchange's market data products) requires confirmation that the requesting market participant receives data from OPRA.

[28] *Id.*

[29] *See* Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37496, 37499 (June 29, 2005) (''Regulation NMS Adopting Release'').

underlying feeds could offer a competing product if it so chooses.

In addition, the fees that are the subject of this rule filing are constrained by competition. Particularly, the Exchange competes with other exchanges (and their affiliates) that may choose to offer similar market data products. If another exchange (or its affiliate) were to charge less to consolidate and distribute a similar product than the Exchange charges to consolidate and distribute the Cboe One Options Feed, prospective Users likely could choose to not subscribe to, or would cease subscribing to, the Cboe One Options Feed. In addition, the Exchange would compete with unaffiliated market data vendors who would be in a position to consolidate and distribute the same data that comprises the Cboe One Options Feed into the vendor's own comparable market data product. If the third-party vendor is able to provide the exact same data for a lower cost, prospective Users would avail themselves of that lower cost and elect not to take the Cboe One Options Feed.

For these reasons, the Exchange believes that the proposed fees are reasonable, equitable, and not unfairly discriminatory.

User Fees. The Exchange believes that the proposed Professional and Non-Professional User fees for the Cboe One Options Feed are reasonable because they represent the combined monthly fees for Professional and Non-Professional User fees, respectively for the underlying individual data feeds, which have previously been filed with the Commission. The Exchange believes that the proposed fees are equitable and not unfairly discriminatory because they will be charged uniformly to Distributors. Moreover, the proposed fee structure of differentiated Professional and Non-Professional fees that are paid by both Internal and External Distributors has long been used by other exchanges, including the Exchange, for their proprietary data products, and by the OPRA plan in order to reduce the price of data to retail investors and make it more broadly available.[30] The Exchange also believes offering Cboe One Options Feed to Non-Professional Users at a lower cost than Professional Users results in greater equity among data recipients, as Professional Users are categorized as such based on their employment and participation in financial markets, and thus, are compensated to participate in the markets. Although Non-Professional Users too can receive significant financial benefits through their participation in the markets, the Exchange believes it is reasonable to charge more to those Users who are more directly engaged in the markets.

Enterprise Fee. The Exchange believes the proposed Enterprise Fees for the Cboe One Options Feed and proposed changes to the Enterprise Fee for the Cboe Options Top feed are reasonable as the fees proposed could result in a fee reduction for Distributors of the respective products with a large number of Professional and Non-Professional Users. If a Distributor has a smaller number of Professional Users of the Cboe One Options Feed, then it may continue using the per User structure and benefit from the per User Fee reductions. By reducing prices for Distributors with a large number of Professional and Non-Professional Users, the Exchange believes that more firms may choose to receive and to distribute the Cboe One Options Feed, thereby expanding the distribution of this market data for the benefit of investors. Also as described above, the Enterprise Fees are entirely optional. A firm that does not have a sufficient number of Users to benefit from purchase of a license need not do so.

Distributor Fees. The Exchange believes that the proposed Distributor fees for the Cboe One Options Feed are reasonable because they represent the combined monthly fees for Internal and External Distributor fees, respectively for the underlying individual data feeds, which have previously been filed with the Commission. The Exchange believes that the proposed fees are equitable and not unfairly discriminatory because they will be charged uniformly to Internal and External Distributors. The Exchange believes that it is also fair and equitable, and not unfairly discriminatory to charge different fees for internal and external distribution of the Cboe One Options Feed. Although the proposed distribution fee charged to External Distributors will be lower than the existing distribution fee charged to Internal Distributors, External Distributors are subject to Non-Professional user fees to which Internal Distributors are not subject, in addition to Professional User fees (or alternatively the proposed Enterprise Fee). Furthermore, the proposal is designed to incentivize External Distributors to subscribe to Cboe One Options Feed.

The proposed Distributor Fees for the Cboe One Options Feed are also designed to ensure that vendors could compete with the Exchange by creating a similar product as the Cboe One Options Feed. The Exchange believes that the proposed Distributor Fees are equitable and reasonable as they equal the combined fee of subscribing to each individual data feed of the Cboe Options Exchanges, which have been previously published by the Commission.

In addition, the Exchange believes it is reasonable to not charge External Distributors of C2 Options Top and Cboe One Options Feed a Distribution Fee during their first three (3) months and does not believe this would inhibit a vendor from creating a competing product and offer a similar free period as the Exchange. Specifically, a vendor seeking to create the Cboe One Options Feed could do so by subscribing to the underlying individual data feeds, all of which will also include a New External Distributor Credit identical to that proposed for the Cboe One Options Feed. As a result, a competing vendor would incur similar costs as the Exchange in offering such free period for a competing product and may do so on the same terms as the Exchange.

Data Consolidation Fee. The Exchange believes that the proposed $500 per month Data Consolidation Fee charged to Distributors who receive the Cboe One Options Feed is reasonable because it represents the value of the data aggregation and consolidation function that the Exchange performs. The Exchange further believes the proposed Data Consolidation Fee is not designed to permit unfair discrimination because all Distributor who obtain the Cboe One Options Feed will be charged the same fee. The increased cost of the Cboe One Options Feed is designed to include the value of the aggregation and consolidation function the Exchange performs in creating the Cboe One Options Feed. Therefore, the Exchange believes the proposed application of the Data Consolidation Fee is reasonable would not permit unfair discrimination.

In addition, a vendor could create a competing product based on the individual data feeds and charge its clients a fee that it believes reflects the value of the aggregation and consolidation function that is competitive with the Cboe One Options Feed pricing. Therefore, the Exchange believes the proposed pricing would enable a vendor to create a competing

[30] *See e.g.,* Securities Exchange Act Release No. 59544 (March 9, 2009), 74 FR 11162 (March 16, 2009) (SR–NYSE–2008–131) (establishing the $15 Non-Professional User Fee (Per User) for NYSE OpenBook); *See e.g.,* Securities Exchange Act Release No. 67589 (August 2, 2012), 77 FR 47459 (August 8, 2012) (revising OPRA's definition of the term ''Nonprofessional''); and *See* Securities Exchange Act Release No. 70683 (October 15, 2013), 78 FR 62798 (October 22, 2013) (SR–CBOE–2013–087) (establishing Professional and Non-Professional User fees for Cboe Options COB Data Feed).

product based on the individual data feeds and charge its clients a fee that it believes reflects the value of the aggregation and consolidation function that is competitive with Cboe One Options Feed pricing.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange 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. The Exchange operates in a highly competitive environment, and its ability to price top-of-book data is constrained by competition among exchanges that offer similar data products to their customers. Top-of-book data is broadly disseminated by competing U.S. options exchanges and through OPRA. In this competitive environment potential Distributors are free to choose which competing product to purchase to satisfy their respective needs for market information. Often, the choice comes down to price, as market data participants look to purchase cheaper data products, and quality, as market participants seek to purchase data that represents significant market liquidity.

The Exchange believes that the proposed fees do not impose a burden on competition or on other SROs that is not necessary or appropriate in furtherance of the purposes of the Act. In particular, market participants are not forced to subscribe to Cboe Options Top, Cboe One Options Feed or any of the Exchange's data feeds, as described above. As noted, the quote and last sale data contained in the Exchange's Cboe Options Top feed is identical to the data sent to OPRA for redistribution to the public. Accordingly, Exchange top-of-book data is widely available today from a number of different sources.

The Exchange believes that the proposed fees do not put any market participants at a relative disadvantage compared to other market participants. As discussed, the proposed waiver, credits and Enterprise Fees would apply to all similarly situated Distributors of Cboe Options Top on an equal and non-discriminatory basis. Because market data customers can find suitable substitute feeds, an exchange that overprices its market data products stands a high risk that users may substitute another product. These competitive pressures ensure that no one exchange's market data fees can impose an undue burden on competition, and the Exchange's proposed fees do not do so here.

Additionally, the Cboe One Options Feed will enhance competition because it provides investors with an alternative option for receiving market data. Although the Cboe Options Exchanges are the exclusive distributors of the individual data feeds from which certain data elements would be taken to create the Cboe One Options Feed, the Exchange would not be the exclusive distributor of the aggregated and consolidated information that would compose the proposed Cboe One Options Feed. Any entity that receives, or elects to received, the underlying data feeds would be able to, if it so chooses, to create a data feed with the same information included in the Cboe One Options Feed and sell and distribute it to its clients so that it could be received by those clients as quickly as the Cboe One Options Feed would be received by those same clients and at a similar cost.

The proposed pricing the Exchange would charge for the Cboe One Options Feed compared to the cost of the individual data feeds from the Cboe Options Exchanges would enable a vendor to receive the underlying individual data feeds and offer a similar product on a competitive basis and with no greater cost than the Exchange. The pricing the Exchange proposes to charge for the Cboe One Options Feed is not lower than the cost to a vendor of receiving the underlying data feeds. Indeed, the proposed pricing equals the combined costs of the respective fees, and the proposed waivers are also being proposed for the underlying individual feeds as well, thereby enabling a vendor to receive the underlying data feeds and offer a similar product on a competitive basis and with no greater cost than the Exchange.

The Exchange further believes that its proposed monthly Data Consolidation Fee would be pro-competitive because a vendor could create a competing product, perform a similar aggregating and consolidating function, and similarly charge for such service. The Exchange notes that a competing vendor might engage in a different analysis of assessing the cost of a competing product. For these reasons, the Exchange believes the proposed pricing, fee waiver and credit, would enable a vendor to create a competing product based on the individual data feeds and charge its clients a fee that it believes reflects the value of the aggregation and consolidation function that is competitive with Cboe One Options Feed pricing.

In establishing the proposed fees, the Exchange considered the competitiveness of the market for proprietary data and all of the implications of that competition. The Exchange believes that it has considered all relevant factors and has not considered irrelevant factors in order to establish fair, reasonable, and not unreasonably discriminatory fees and an equitable allocation of fees among all users. The existence of alternatives to the Cboe One Options Feed, including the existing underlying feeds and data from other sources, such as OPRA, constrains the Exchange from setting unreasonable fees, or fees that are unreasonably discriminatory, when vendors and Distributors can elect these alternatives or choose not to purchase a specific proprietary data product if its cost to purchase is not justified by the returns any particular vendor or Distributor would achieve through the purchase.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

The Exchange has not solicited, and does not intend to solicit, comments on this proposed rule change. The Exchange has not received any written comments from members or other interested parties.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A) of the Act [31] and paragraph (f) of Rule 19b–4 [32] thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission will 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 (*http://www.sec.gov/rules/sro.shtml*); or

[31] 15 U.S.C. 78s(b)(3)(A).

[32] 17 CFR 240.19b–4(f).

• Send an email to *rule-comments@sec.gov.* Please include File Number SR–CBOE–2023–015 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–2023–015. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–CBOE–2023–015 and should be submitted on or before April 19, 2023.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[33]

J. Matthew DeLesDernier,

Deputy Secretary.

[FR Doc. 2023–06429 Filed 3–28–23; 8:45 am]

BILLING CODE 8011–01–P

[33] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–97188; File No. SR–C2–2023–010]

Self-Regulatory Organizations; Cboe C2 Exchange, Inc.; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fees Schedule

March 23, 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 March 16, 2023, Cboe C2 Exchange, Inc. (''Exchange'' or ''C2'') filed with the Securities and Exchange Commission (''Commission'') the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

Cboe C2 Exchange, Inc. (the ''Exchange'' or ''C2'') proposes to update its Fees Schedule. The text of the proposed rule change is provided in Exhibit 5.

The text of the proposed rule change is also available on the Exchange's website (*http://markets.cboe.com/us/options/regulation/rule_filings/ctwo/*), 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.

[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

The Exchange proposes to amend the Market Data section of its Fees Schedule.[3] Particularly, the Exchange proposes to (i) adopt a New External Credit applicable to C2 Options Top, (ii) adopt a credit towards the monthly Distribution fees for C2 Options Top, (iii) modify the C2 Options Top Enterprise Fee; and (iv) establish fees for Cboe One Options Feed.

C2 Top Data

By way of background, the Exchange offers the C2 Options Top Data feed, which is an uncompressed data feed that offers top-of-book quotations and last sale information based on options orders entered into the Exchange's System. The C2 Options Top Data feed benefits investors by facilitating their prompt access to real-time top-of-book information contained in C2 Options Top Data. The Exchange's affiliated options exchanges (*i.e.,* Cboe Exchange, Inc. (''Cboe Options''), Cboe BZX Exchange, Inc. (''BZX Options''), and Cboe EDGX Exchange, Inc. (''EDGX Options'') (collectively, ''Affiliates'') also offer similar top-of-book data feeds.[4] Particularly, each of the Exchange's Affiliates offer top-of-book quotation and last sale information based on their own quotation and trading activity that is substantially similar to the information provided by the Exchange through the C2 Options Top. The Exchange proposes to make the following fee changes relating to C2 Options Top.

New External Distributor Credit

The Exchange first proposes to adopt a New External Distributor Credit which will provide that new External Distributors of the C2 Options Top feed will not be charged an External Distributor Fee for their first three (3) months in order to incentivize External Distributors to enlist new users to receive C2 Options Top feed. The Exchange notes that other exchanges, including the Exchange's affiliated equities exchanges, offer similar credits for similar market data products. For example, Cboe's equities exchanges

[3] The Exchange initially filed the proposed fee changes on March 1, 2023 (SR–C2–2023–008). On March 3, 2023, the Exchange withdrew that filing and submitted SR–C2–2023–009. On March 16, 2023, the Exchange withdrew that filing and submitted this proposal.

[4] *See* Cboe Options Fees Schedule, EDGX Rule 21.15, and BZX Rule 21.15.

currently offer a three (3) month New External Distributor Credit applicable to External Distributors of their top-of-book data feeds.[5]

Distributor Fee Credit

The Exchange also proposes to provide that each External Distributor will receive a credit against its monthly Distributor Fee for the C2 Options Top equal to the amount of its monthly Usage Fees up to a maximum of the Distributor Fee for the C2 Options Top feed. For example, an External Distributor will be subject to a $2,500 monthly Distributor Fee where they elect to receive the C2 Options Top. If that External Distributor reports User quantities totaling $2,500 or more of monthly usage of the C2 Options Top, it will pay no net Distributor Fee, whereas if that same External Distributor were to report User quantities totaling $1,500 of monthly usage, it will pay a net of $1,000 for the Distributor Fee. External Distributors will remain subject to the per User fees applicable to C2 Options Top. In every case the Exchange will receive at least $2,500 in connection with the distribution of the C2 Options Top (through a combination of the External Distribution Fee and per User Fees). The Exchange notes that its affiliated equities exchanges offer a similar credit for a similar market data product.[6]

Enterprise Fee Tiers

The Exchange currently offers Distributors the ability to purchase a monthly (and optional) Enterprise license to receive the C2 Options Top Feed for distribution to an unlimited number of Professional and Non-Professional Users. The Enterprise Fee is an alternative to Professional and Non-Professional User fees and permits a Distributor to pay a flat fee for an unlimited number of Professional and Non-Professional Users and is in addition to the Distribution fees. The Exchange currently assesses an Enterprise fee of $10,000 per month. The Exchange proposes to modify the current Enterprise Fee and adopt a tiered structure based on the number of Users a Distributor has. The Exchange proposes to adopt the following monthly Enterprise Fees: $10,000 for up to 1,500,000 Users (Tier 1), $20,000 for 1,500,001 to 2,500,000 Users (Tier 2) and $30,000 for 2,500,001 or greater Users (Tier 3). The proposed fees are non-progressive (*e.g.,* if a Distributor has 2,000,000 Users, it will be subject to $20,000 for Tier 2). The Enterprise Fee may provide an opportunity to reduce fees. For example, if a Distributor has 1 million Non-Professional Users who each receive Cboe One Options Feed at $0.10 per month (as proposed), then that Distributor will pay $100,000 per month in Professional Users fees. If the Distributor instead were to purchase the proposed Enterprise license (tier 1), it would alternatively pay a flat fee of $10,000 for up to 1.5 million Professional and Non-Professional Users. A Distributor that pays the Tier 1 or Tier 2 Enterprise Fee will have to report its number of such Users on a monthly basis. A Distributor that pays the Tier 3 Enterprise Fee will only have to report the number of its Users every six months.[7] The Exchange notes that if the reported number of Users exceed the Enterprise Tier a Distributor has purchased, the higher Tier will apply (*e.g.,* if a Distributor purchases Tier 1, but reports 1,600,000 Users for a month, the Distributor will be assessed the Tier 2 fee).

The Exchange also proposes to allow Distributors to purchase the Enterprise Fee on a monthly or annual basis. Annual licenses will receive a 5% discount off the applicable Enterprise Tier fee. The Exchange notes that the purchase of an Enterprise license is voluntary, and a firm may elect to instead use the per User structure and benefit from the proposed per User Fees described above. For example, a firm that does not have a sufficient number of Users to benefit from purchase of a license need not do so.

Cboe One Options Feed

By way of background, the Exchange recently adopted a new market data product called Cboe One Options Feed, which is launching March 1, 2023.[8] Cboe One Options Feed will provide top-of-book quotation and last sale information based on the quotation and trading activity on the Exchange and each of its Affiliates, which the Exchange believes offers a comprehensive and highly representative view of US options pricing to market participants. More specifically, Cboe One Options Feed will contain the aggregate best bid and offer (''BBO'') of all displayed orders for options traded on the Exchange and its Affiliates, as well as individual last sale information and volume, which includes the price, time of execution and individual Cboe options exchange on which the trade was executed.

The Cboe One Options Feed will also consist of Symbol Summary,[9] Market Status,[10] Trading Status,[11] and Trade Break [12] messages for the Exchange and each of its Affiliates.

The Exchange will use the following data feeds to create the Cboe One Options Feed, each of which is available to other vendors and/or distributors: Cboe Options Top Data, C2 Options Top Data, EDGX Options Top and BZX Options Top. A vendor and/or distributor that wishes to create a product like the Cboe One Options Feed could instead subscribe to each of the aforementioned data feeds. Any entity that receives, or elects to receive, the individual data feeds or the feeds that may be used to create a product like the Cboe One Options Feed would be able to, if it so chooses, to create a data feed with the same information included in the Cboe One Options Feed and sell and distribute it to its clients so that it could be received by those clients as quickly as the Cboe One Options Feed would be received by those same clients.

The Exchange proposes to amend its fee schedule to incorporate fees related to the Cboe One Options Feed. The Exchange has taken into consideration its affiliated relationship with its Affiliates in its design of the Cboe One Options Feed to assure that vendors [13]

[5] *See e.g.,* EDGX Equities Exchange Fees Schedule, Market Data Fees.

[6] *See e.g.,* EDGX Equities Exchange Fees Schedule, Id.

[7] *See* Cboe Global Markets north American Data Policies.

[8] *See* SR–C2–2023–006.

[9] The Symbol Summary message will include the total executed volume across all Cboe Options Exchanges.

[10] The Market Status message is disseminated to reflect a change in the status of one of the Cboe Options Exchanges. For example, the Market Status message will indicate whether one of the Cboe Options Exchanges is experiencing a systems issue or disruption and quotation or trade information from that market is not currently being disseminated via the Cboe One Options Feed as part of the aggregated BBO. The Market Status message will also indicate when a Cboe Options Exchange is no longer experiencing a systems issue or disruption to properly reflect the status of the aggregated BBO.

[11] The Trade Break message will indicate when an execution on a Cboe Options Exchange is broken in accordance with the individual Cboe Options Exchange's rules (*e.g.,* Cboe Options Rule 6.5, C2 Option Rule 6.5, BZX Options Rule 20.6, EDGX Options Rule 20.6).

[12] The Trading Status message will indicate the current trading status of an option contract on each individual Cboe Options Exchange. A Trading Status message will also be sent whenever a security's trading status changes. For example, a Trading Status message will be sent when a symbol is open for trading or when a symbol is subject to a trading halt or when it resumes trading.

[13] For purposes of this filing, a ''vendor'', which is a type of distributor, will refer to any entity that receives an exchange market data product directly from the exchange or indirectly from another entity (for example, from an extranet) and then resell that data to a third-party customer (*e.g.,* a data provider that resells exchange market data to a retail brokerage firm). The term ''distributor'' herein, will

Continued

would be able to offer a similar product on the same terms as the Exchange from a cost perspective. Although Cboe Options Exchanges are the exclusive distributors of the individual data feeds from which certain data elements would be taken to create the Cboe One Options Feed, the Exchange would not be the exclusive distributor of the aggregated and consolidated information that compose the proposed Cboe One Options Feed. Distributors and/or vendors would be able, if they chose, to create a data feed with the same information as the Cboe One Options Feed and distribute it to their clients on a level-playing field with respect to latency and cost as compared to the Exchange's proposed Cboe One Options Feed. The pricing the Exchange proposes to charge for the Cboe One Options Feed, as described more fully below, is not lower than the cost to a distributor or vendor to obtain the underlying data feeds. In fact, the Distribution and User (Professional and Non-Professional) fees, as well as the optional Enterprise Fees, that the Exchange proposes to adopt for the Cboe One Options Feed are equal to the respective combined fees for subscribing to each individual data feed. The Exchange also proposes to adopt a ''Data Consolidation Fee,'' which would reflect the value of the aggregation and consolidation function the Exchange performs in creating the Cboe One Options Feed. Therefore, vendors would be enabled to create a competing product based on the individual data feeds and charge their clients a fee that they believe reflects the value of the aggregation and consolidation function that is competitive with Cboe One Options Feed pricing. For these reasons, the Exchange believes that vendors could readily offer a product similar to the Cboe One Options Feed on a competitive basis at a similar cost.

The proposed Cboe One Options Feed fees include the following, each of which are described in further detail below: (i) Distributor Fees; (ii) User Fees for both Professional and Non-Professional Users; (iii) Enterprise Fees; and (iv) a Data Consolidation Fee. The Exchange also proposes to adopt a New External Distributor credit and a credit against the monthly External Distribution Fee equal to the amount of monthly User Fees up to a maximum of the External Distributor Fee. To ensure consistency across the Cboe Options Exchanges, Cboe Options, EDGX Options, and BZX Options will be filing companion proposals to reflect this proposal in their respective fee schedules.

refer to any entity that receives an exchange market data product, directly from the exchange or indirectly from another entity (*e.g.,* from a data vendor) and then distributes to individual internal or external end-users (*e.g.,* a retail brokerage firm who distributes exchange data to its individual employees and/or customers). An example of a vendor's ''third-party customer'' or ''customer'' is an institutional broker dealer or a retail broker dealer, who then may in turn distribute the data to their customers who are individual internal or external end-users.

Distributor Fees

As proposed, each Internal Distributor that receives the Cboe One Options Feed shall pay a fee of $15,000 per month. The proposed Internal Distribution Fee equals the combined monthly Internal Distribution fees for the underlying individual data feeds of the Cboe Options Exchanges (*i.e.,* the monthly Internal Distribution fees are $3,000 for BZX Options Top, $500 for EDGX Options Top, $2,500 for C2 Options Top and $9,000 for Cboe Options Top). The Exchange also proposes to assess External Distributors a monthly fee of $10,000. The proposed External Distribution fee equals the combined monthly External Distribution fees for the underlying individual data feeds of the Cboe Options Exchanges (*i.e.,* the monthly External Distribution fees are $5,000 per month for the Cboe Options Top, $2,500 per month for C2 Options Top, $2,000 per month for BZX Options Top, and $500 for EDGX Options Top). As noted above, the Exchange is proposing to charge External Distributors an External Distribution Fee that equals the combined External Distribution fees of each individual Top feed to ensure that vendors could compete with the Exchange by creating the same product as the Cboe One Options Feed to sell to their clients.

New External Distributor Credit

The Exchange proposes to adopt a New External Distributor Credit which would provide that new External Distributors of the Cboe One Options Feed will not be charged an External Distributor Fee for their first three (3) months in order to incentive them to enlist new Users to receive the Cboe One Options Feed. The Exchange notes that other exchanges, including the Exchange's affiliated equities exchanges, offer similar credits for similar market data products. For example, Cboe's equities exchanges currently offer a three (3) month New External Distributor Credit applicable to Cboe One Summary Feed.[14] To alleviate any competitive issues that may arise with a vendor seeking to offer a product similar to the Cboe One Options Feed based on the underlying data feeds, the Exchange is proposing, as discussed above, to also adopt a three-month New External Distributor Credit for the underlying top-of-book data feeds for the Cboe Options Exchanges. The respective proposals to adopt a three-month credit ensures the proposed New External Distributor Credit for Cboe One Options will not cause the combined cost of subscribing to Cboe Options, C2 Options, BZX Options and EDGX Options Top feeds for new External Distributors to be greater than those that would be charged to subscribe to the Cboe One Options feed.

[14] *See e.g.,* EDGX Equities Exchange Fees Schedule, Market Data Fees.

User Fees

In addition to Internal and External Distributor Fees, the Exchange proposes to assess Professional [15] User and Non-Professional [16] User Fees. The proposed monthly Professional User fee for the Cboe Options Exchanges is $30.50 per Professional User, which equals the combined monthly Professional User fees of the underlying individual Cboe Options Exchanges Top feeds (*i.e.,* $15.50 per Professional User for the Cboe Options Top, $5 per Professional User for C2 Options Top, $5 per Professional User for BZX Options Top, and $5 per Professional User for EDGX Options Top). The Exchange also proposes to adopt a monthly Non-Professional User fee of $0.60 per Non-Professional User, which similarly represents the combined total Non-Professional User fee for the individual data feeds of the Cboe Options (*i.e.,* $0.30 per Non-Professional User for Cboe Options Top, $0.10 per Non-Professional User for C2 Options Top, $0.10 per Non-Professional User for

[15] A Professional User of an Exchange Market Data product is any natural person recipient of an Exchange Market Data product who is not a Non-Professional User.

[16] A ''Non-Professional User'' of an Exchange Market Data product is a natural person or qualifying trust that uses Data only for personal purposes and not for any commercial purpose and, for a natural person who works in the United States, is not: (i) registered or qualified in any capacity with the Securities and Exchange Commission, the Commodities Futures Trading Commission, any state securities agency, any securities exchange or association, or any commodities or futures contract market or association; (ii) engaged as an ''investment adviser'' as that term is defined in Section 202(a)(11) of the Investment Advisors Act of 1940 (whether or not registered or qualified under that Act); or (iii) employed by a bank or other organization exempt from registration under federal or state securities laws to perform functions that would require registration or qualification if such functions were performed for an organization not so exempt; or, for a natural person who works outside of the United States, does not perform the same functions as would disqualify such person as a Non-Professional User if he or she worked in the United States.

BZX Options Top, and $0.10 per Non-Professional User for EDGX Options Top). Similar to the individual underlying feeds, Distributors that receive Cboe One Options Feed will be required to count Professional and Non-Professional Users to which they provide the data feed.

The Exchange also proposes to provide that each External Distributor will receive a credit against its monthly Distributor Fee for the Cboe One Feed equal to the amount of its monthly User Fees up to a maximum of the Distributor Fee for the Cboe One Options Feed. For example, an External Distributor will be subject to a $10,000 monthly Distributor Fee where they elect to receive the Cboe One Options Feed. If that External Distributor reports User quantities totaling $10,000 or more of monthly User fees of the Cboe Options One Feed, it will pay no net Distributor Fee, whereas if that same External Distributor were to report User quantities totaling $9,000 of monthly usage, it will pay a net of $1,000 for the Distributor Fee. External Distributors will remain subject to the per User fees discussed above. In every case the Exchange will receive at least $10,000 in connection with the distribution of the Cboe One Options Feed (through a combination of the External Distribution Fee and per User Fees). The Exchange notes that its affiliated equities exchanges offer a similar credit for a similar market data product.[17]

Enterprise Fees

The Exchange also proposes to establish Enterprise Fees that will permit a Distributor to purchase a monthly (and optional) Enterprise license to receive the Cboe One Options Feed for distribution to a specified number of Professional and Non-Professional Users. The Enterprise Fee will be an alternative to Professional and Non-Professional User fees and will permit a Distributor to pay a flat fee to receive the data for a specified number of Professional and Non-Professional Users, which the Exchange proposes to make clear in the Fee Schedule. Like User fees, the Enterprise Fee would be assessed in addition to the Distribution Fees. The Exchange proposes to adopt the following monthly Enterprise Fees: $350,000 for up to 1,500,000 Users (Tier 1), $550,000 for 1,500,001 to 2,500,000 Users (Tier 2) and $750,000 for 2,500,001 or greater Users (Tier 3). The proposed fees are non-progressive (*e.g.,* if a Distributor has 2,000,000 Users, it will be subject to $550,000 for Tier 2). The Enterprise Fee may provide an opportunity to reduce fees. For example, if a Distributor has 1 million Non-Professional Users who each receive Cboe One Options Feed at $0.60 per month (as proposed), then that Distributor will pay $600,000 per month in Professional Users fees. If the Distributor instead were to purchase the proposed Enterprise license (tier 1), it would alternatively pay a flat fee of $350,000 for up to 1.5 million Professional and Non-Professional Users. A Distributor must pay a separate Enterprise Fee for each entity that controls the display of Cboe One Options Feed if it wishes for such Users to be covered by an Enterprise Fee rather than by per User fees.[18] A Distributor that pays the Tier 1 or Tier 2 Enterprise Fee will have to report its number of such Users on a monthly basis. A Distributor that pays the Tier 3 Enterprise Fee will only have to report the number of its Users every six months.[19] The Exchange notes that if the reported number of Users exceed the Enterprise Tier a Distributor has purchased, the higher Tier will apply (*e.g.,* if a Distributor purchases Tier 1, but reports 1,600,000 Users for a month, the Distributor will be assessed the Tier 2 fee).

The Exchange also proposes to allow Distributors to purchase the Enterprise Fee on a monthly or annual basis. Annual licenses will receive a 5% discount off the applicable Enterprise Fee tier. The Exchange notes that the purchase of an Enterprise license is voluntary, and a firm may elect to instead use the per User structure and benefit from the proposed per User Fees described above. For example, a firm that does not have a sufficient number of Users to benefit from purchase of a license need not do so.

Data Consolidation Fee

The Exchange also proposes to charge External Distributors of the Cboe One Options Feed a separate Data Consolidation Fee, which reflects the value of the aggregation and consolidation function the Exchange performs in creating the Cboe One Options Feed. As stated above, the Exchange creates the Cboe One Options Feed from data derived from the Cboe Options Top, C2 Options Top, BZX Options Top, and EDGX Options Top Feeds. External Distributors could similarly create a competing product to the Cboe One Options Feed based on these individual data feeds, or, alternatively, the applicable Top and Last Sale products offered by the Exchanges, and could charge its clients a fee that it believes reflects the value of the aggregation and consolidation function. Accordingly, the Exchange believes that vendors could readily offer a product similar to the Cboe One Options Feed on a competitive basis at a similar cost.

2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with the objectives of Section 6 of the Act,[20] in general, and furthers the objectives of Section 6(b)(4),[21] in particular, as it is designed to provide for the equitable allocation of reasonable dues, fees and other charges among its members and other recipients of Exchange data. In addition, the Exchange believes that the proposed rule change is consistent with Section 11(A) of the Act as it supports (i) fair competition among brokers and dealers, among exchange markets, and between exchange markets and markets other than exchange markets, and (ii) the availability to brokers, dealers, and investors of information with respect to quotations for and transactions in securities.[22] Finally, the proposed rule change is also consistent with Rule 603 of Regulation NMS,[23] which provides that any national securities exchange that distributes information with respect to quotations for or transactions in an NMS stock do so on terms that are not unreasonably discriminatory.

The Exchange first notes that it operates in a highly competitive environment. Indeed, there are currently 16 registered options exchanges that trade options. Based on publicly available information, no single options exchange has more than 17% of the market share.[24] The Exchange believes top-of-book quotation and transaction data is highly competitive as national securities exchanges compete vigorously with each other to provide efficient, reliable, and low-cost data to a wide range of investors and market participants. Indeed, there are several competing products offered by other national securities exchanges today, not counting products offered by the

[17] *See e.g.,* EDGX Equities Exchange Fees Schedule, Market Data Fees.

[18] For example, if a Distributor that distributes C2 Options Top to Retail Brokerage Firm A and Retail Brokerage Firm B and wishes to have the Users under each firm covered by an Enterprise license, the Distributor would be subject to two Enterprise Fees.

[19] *See* Cboe Global Markets north American Data Policies.

[20] 15 U.S.C. 78f.

[21] 15 U.S.C. 78f(b)(4)

[22] 15 U.S.C. 78k–1.

[23] *See* 17 CFR 242.603.

[24] *See* Cboe Global Markets U.S. Options Market Month-to-Date Volume Summary (February 23, 2024), available at *https://markets.cboe.com/us/options/market_statistics/.*

Exchange's affiliates, and each of the Exchange's affiliated U.S. options exchanges also offers similar top-of-book data.[25] Each of those exchanges offer top-of-book quotation and last sale information based on their own quotation and trading activity that is substantially similar to the information provided by the Exchange through the C2 Options Top Data Feed. Further, the quote and last sale data contained in the C2 Data Feed is identical to the data sent to OPRA for redistribution to the public.[26] Accordingly, Exchange top-of-book data is widely available today from a number of different sources.

Moreover, the C2 Options Top Data Feed and Cboe One Options Feeds are distributed and purchased on a voluntary basis, in that neither the Exchange nor market data distributors are required by any rule or regulation to make these data products available. Accordingly, Distributors (including vendors) and Users can discontinue use at any time and for any reason, including due to an assessment of the reasonableness of fees charged. Further, the Exchange is not required to make any proprietary data products available or to offer any specific pricing alternatives to any customers. Moreover, persons (including broker-dealers) who subscribe to any exchange proprietary data feed must also have equivalent access to consolidated Options Information[27] from OPRA for the same classes or series of options that are included in the proprietary data feed, and proprietary data feeds cannot be used to meet that particular requirement.[28] As such, all proprietary data feeds are optional.

The Commission has repeatedly expressed its preference for competition over regulatory intervention in determining prices, products, and services in the securities markets. Particularly, in Regulation NMS, the Commission highlighted the importance of market forces in determining prices and SRO revenues and, also, recognized that current regulation of the market system ''has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.'' [29] Making similar data products available to market participants fosters competition in the marketplace, and constrains the ability of exchanges to charge supracompetitive fees. In the event that a market participant views one exchange's data product as more or less attractive than the competition they can and do switch between similar products. The proposed fees are a result of the competitive environment, as the Exchange seeks to adopt fees to attract purchasers of C2 Options Top Data and Cboe One Options Feed.

The Exchange has also taken into consideration its affiliated relationship with its Affiliates in its design of the Cboe One Options Feed to ensure that vendors would be able to offer a similar product on the same terms as the Exchange from a cost perspective. While the Cboe Options Exchanges are the exclusive distributors of the individual data feeds from which certain data elements may be taken to create the Cboe One Options Feed, they are not the exclusive distributors of the aggregated and consolidated information that comprises the Cboe One Options Feed. Any entity that receives, or elects to receive, the individual data feeds would be able to, if it so chooses, to create a data feed with the same information included in the Cboe One Options Feed and sell and distribute it to its clients so that it could be received by those clients as quickly as the Cboe One Options Feed would be received by those same clients with no greater cost than the Exchange.

In addition, vendors and Distributors that do not wish to purchase the Cboe One Options Feed may separately purchase the individual underlying products, and if they so choose, perform a similar aggregation and consolidation function that the Exchange performs in creating the Cboe One Options Feed. To enable such competition, the Exchange is offering the Cboe One Options Feed on terms that a vendor of those underlying feeds could offer a competing product if it so chooses.

In addition, the fees that are the subject of this rule filing are constrained by competition. Particularly, the Exchange competes with other exchanges (and their affiliates) that may choose to offer similar market data products. If another exchange (or its affiliate) were to charge less to consolidate and distribute a similar product than the Exchange charges to consolidate and distribute the Cboe One Options Feed, prospective Users likely could choose to not subscribe to, or would cease subscribing to, the Cboe One Options Feed. In addition, the Exchange would compete with unaffiliated market data vendors who would be in a position to consolidate and distribute the same data that comprises the Cboe One Options Feed into the vendor's own comparable market data product. If the third-party vendor is able to provide the exact same data for a lower cost, prospective Users would avail themselves of that lower cost and elect not to take the Cboe One Options Feed.

For these reasons, the Exchange believes that the proposed fees are reasonable, equitable, and not unfairly discriminatory.

User Fees. The Exchange believes that the proposed Professional and Non-Professional User fees for the Cboe One Options Feed are reasonable because they represent the combined monthly fees for Professional and Non-Professional User fees, respectively for the underlying individual data feeds, which have previously been filed with the Commission. The Exchange believes that the proposed fees are equitable and not unfairly discriminatory because they will be charged uniformly to Distributors. Moreover, the proposed fee structure of differentiated Professional and Non-Professional fees that are paid by both Internal and External Distributors has long been used by other exchanges, including the Exchange, for their proprietary data products, and by the OPRA plan in order to reduce the price of data to retail investors and make it more broadly available.[30] The Exchange also believes offering Cboe

[25] *See e.g.,* NYSE Arca Options Proprietary Market Data Fees Schedule, MIAX Options Exchange, Fee Schedule, Section 6 (Market Data Fees), Nasdaq PHLX Options 7 Pricing Schedule, Section 10 (Proprietary Data Feed Fees) and Cboe Data Services, LLC Fees Schedule.

[26] The Exchange makes available the top-of-book data and last sale data that is included in the C2 Options Top Data Feed no earlier than the time at which the Exchange sends that data to OPRA.

[27] ''Consolidated Options Information'' means consolidated Last Sale Reports combined with either consolidated Quotation Information or the BBO furnished by OPRA. Access to consolidated Options Information is deemed ''equivalent'' if both kinds of information are equally accessible on the same terminal or work station. See Limited Liability Company Agreement of Options Price Reporting Authority, LLC (''OPRA Plan''), Section 5.2(c)(iii). The Exchange notes that this requirement under the OPRA Plan is also reiterated under the Cboe Global Markets Global Data Agreement and Cboe Global Markets North American Data Policies, which subscribers to any exchange proprietary product must sign and are subject to, respectively. Additionally, the Exchange's Data Order Form (used for requesting the Exchange's market data products) requires confirmation that the requesting market participant receives data from OPRA.

[28] *Id.*

[29] *See* Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37496, 37499 (June 29, 2005) (''Regulation NMS Adopting Release'').

[30] *See, e.g.,* Securities Exchange Act Release No. 59544 (March 9, 2009), 74 FR 11162 (March 16, 2009) (SR–NYSE–2008–131) (establishing the $15 Non-Professional User Fee (Per User) for NYSE OpenBook); *See, e.g.,* Securities Exchange Act Release No. 67589 (August 2, 2012), 77 FR 47459 (August 8, 2012) (revising OPRA's definition of the term ''Nonprofessional''); and *See* Securities Exchange Act Release No. 70683 (October 15, 2013), 78 FR 62798 (October 22, 2013) (SR–CBOE–2013–087) (establishing Professional and Non-Professional User fees for Cboe Options COB Data Feed).

One Options Feed to Non-Professional Users at a lower cost than Professional Users results in greater equity among data recipients, as Professional Users are categorized as such based on their employment and participation in financial markets, and thus, are compensated to participate in the markets. Although Non-Professional Users too can receive significant financial benefits through their participation in the markets, the Exchange believes it is reasonable to charge more to those Users who are more directly engaged in the markets.

Enterprise Fee. The Exchange believes the proposed Enterprise Fees for the Cboe One Options Feed and proposed changes to the Enterprise Fee for the C2 Options Top feed are reasonable as the fees proposed could result in a fee reduction for Distributors of the respective products with a large number of Professional and Non-Professional Users. If a Distributor has a smaller number of Professional Users of the Cboe One Options Feed, then it may continue using the per User structure and benefit from the per User Fee reductions. By reducing prices for Distributors with a large number of Professional and Non-Professional Users, the Exchange believes that more firms may choose to receive and to distribute the Cboe One Options Feed, thereby expanding the distribution of this market data for the benefit of investors. Also as described above, the Enterprise Fees are entirely optional. A firm that does not have a sufficient number of Users to benefit from purchase of a license need not do so.

Distributor Fees. The Exchange believes that the proposed Distributor fees for the Cboe One Options Feed are reasonable because they represent the combined monthly fees for Internal and External Distributor fees, respectively for the underlying individual data feeds, which have previously been filed with the Commission. The Exchange believes that the proposed fees are equitable and not unfairly discriminatory because they will be charged uniformly to Internal and External Distributors. The Exchange believes that it is also fair and equitable, and not unfairly discriminatory to charge different fees for internal and external distribution of the Cboe One Options Feed. Although the proposed distribution fee charged to External Distributors will be lower than the existing distribution fee charged to Internal Distributors, External Distributors are subject to Non-Professional user fees to which Internal Distributors are not subject, in addition to Professional User fees (or alternatively the proposed Enterprise Fee). Furthermore, the proposal is designed to incentivize External Distributors to subscribe to Cboe One Options Feed.

The proposed Distributor Fees for the Cboe One Options Feed are also designed to ensure that vendors could compete with the Exchange by creating a similar product as the Cboe One Options Feed. The Exchange believes that the proposed Distributor Fees are equitable and reasonable as they equal the combined fee of subscribing to each individual data feed of the Cboe Options Exchanges, which have been previously published by the Commission.

In addition, the Exchange believes it is reasonable to not charge External Distributors of C2 Options Top and Cboe One Options Feed a Distribution Fee during their first three (3) months and does not believe this would inhibit a vendor from creating a competing product and offer a similar free period as the Exchange. Specifically, a vendor seeking to create the Cboe One Options Feed could do so by subscribing to the underlying individual data feeds, all of which will also include a New External Distributor Credit identical to that proposed for the Cboe One Options Feed. As a result, a competing vendor would incur similar costs as the Exchange in offering such free period for a competing product and may do so on the same terms as the Exchange.

Data Consolidation Fee. The Exchange believes that the proposed $500 per month Data Consolidation Fee charged to Distributors who receive the Cboe One Options Feed is reasonable because it represents the value of the data aggregation and consolidation function that the Exchange performs. The Exchange further believes the proposed Data Consolidation Fee is not designed to permit unfair discrimination because all Distributor who obtain the Cboe One Options Feed will be charged the same fee. The increased cost of the Cboe One Options Feed is designed to include the value of the aggregation and consolidation function the Exchange performs in creating the Cboe One Options Feed. Therefore, the Exchange believes the proposed application of the Data Consolidation Fee is reasonable would not permit unfair discrimination.

In addition, a vendor could create a competing product based on the individual data feeds and charge its clients a fee that it believes reflects the value of the aggregation and consolidation function that is competitive with the Cboe One Options Feed pricing. Therefore, the Exchange believes the proposed pricing would enable a vendor to create a competing product based on the individual data feeds and charge its clients a fee that it believes reflects the value of the aggregation and consolidation function that is competitive with Cboe One Options Feed pricing.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange 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. The Exchange operates in a highly competitive environment, and its ability to price top-of-book data is constrained by competition among exchanges that offer similar data products to their customers. Top-of-book data is broadly disseminated by competing U.S. options exchanges and through OPRA. In this competitive environment potential Distributors are free to choose which competing product to purchase to satisfy their respective needs for market information. Often, the choice comes down to price, as market data participants look to purchase cheaper data products, and quality, as market participants seek to purchase data that represents significant market liquidity.

The Exchange believes that the proposed fees do not impose a burden on competition or on other SROs that is not necessary or appropriate in furtherance of the purposes of the Act. In particular, market participants are not forced to subscribe to C2 Options Top, Cboe One Options Feed or any of the Exchange's data feeds, as described above. As noted, the quote and last sale data contained in the Exchange's C2 Options Top feed is identical to the data sent to OPRA for redistribution to the public. Accordingly, Exchange top-of-book data is widely available today from a number of different sources.

The Exchange believes that the proposed fees do not put any market participants at a relative disadvantage compared to other market participants. As discussed, the proposed waiver, credits and Enterprise Fees would apply to all similarly situated Distributors of C2 Options Top on an equal and non-discriminatory basis. Because market data customers can find suitable substitute feeds, an exchange that overprices its market data products stands a high risk that users may substitute another product. These competitive pressures ensure that no one exchange's market data fees can impose an undue burden on competition, and the Exchange's proposed fees do not do so here.

Additionally, the Cboe One Options Feed will enhance competition because

it provides investors with an alternative option for receiving market data. Although the Cboe Options Exchanges are the exclusive distributors of the individual data feeds from which certain data elements would be taken to create the Cboe One Options Feed, the Exchange would not be the exclusive distributor of the aggregated and consolidated information that would compose the proposed Cboe One Options Feed. Any entity that receives, or elects to received, the underlying data feeds would be able to, if it so chooses, to create a data feed with the same information included in the Cboe One Options Feed and sell and distribute it to its clients so that it could be received by those clients as quickly as the Cboe One Options Feed would be received by those same clients and at a similar cost.

The proposed pricing the Exchange would charge for the Cboe One Options Feed compared to the cost of the individual data feeds from the Cboe Options Exchanges would enable a vendor to receive the underlying individual data feeds and offer a similar product on a competitive basis and with no greater cost than the Exchange. The pricing the Exchange proposes to charge for the Cboe One Options Feed is not lower than the cost to a vendor of receiving the underlying data feeds. Indeed, the proposed pricing equals the combined costs of the respective fees, and the proposed waivers are also being proposed for the underlying individual feeds as well, thereby enabling a vendor to receive the underlying data feeds and offer a similar product on a competitive basis and with no greater cost than the Exchange.

The Exchange further believes that its proposed monthly Data Consolidation Fee would be pro-competitive because a vendor could create a competing product, perform a similar aggregating and consolidating function, and similarly charge for such service. The Exchange notes that a competing vendor might engage in a different analysis of assessing the cost of a competing product. For these reasons, the Exchange believes the proposed pricing, fee waiver and credit, would enable a vendor to create a competing product based on the individual data feeds and charge its clients a fee that it believes reflects the value of the aggregation and consolidation function that is competitive with Cboe One Options Feed pricing.

In establishing the proposed fees, the Exchange considered the competitiveness of the market for proprietary data and all of the implications of that competition. The Exchange believes that it has considered all relevant factors and has not considered irrelevant factors in order to establish fair, reasonable, and not unreasonably discriminatory fees and an equitable allocation of fees among all users. The existence of alternatives to the Cboe One Options Feed, including the existing underlying feeds and data from other sources, such as OPRA, constrains the Exchange from setting unreasonable fees, or fees that are unreasonably discriminatory, when vendors and Distributors can elect these alternatives or choose not to purchase a specific proprietary data product if its cost to purchase is not justified by the returns any particular vendor or Distributor would achieve through the purchase.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

The Exchange has not solicited, and does not intend to solicit, comments on this proposed rule change. The Exchange has not received any written comments from members or other interested parties.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A) of the Act [31] and paragraph (f) of Rule 19b–4 [32] thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission will 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 (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–C2–2023–010 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–C2–2023–010. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–C2–2023–010 and should be submitted on or before April 19, 2023.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[33]

J. Matthew DeLesDernier,

Deputy Secretary.

[FR Doc. 2023–06430 Filed 3–28–23; 8:45 am]

BILLING CODE 8011–01–P

[31] 15 U.S.C. 78s(b)(3)(A).

[32] 17 CFR 240.19b–4(f).

[33] 17 CFR 200.30–3(a)(12).

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #17834 and #17835; MAINE Disaster Number ME–00065]

Presidential Declaration of a Major Disaster for Public Assistance Only for the State of Maine

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 Maine (FEMA–4696–DR), dated 03/22/2023.

Incident: Severe Storms and Flooding.

Incident Period: 12/23/2022 through 12/24/2022.

DATES: Issued on 03/22/2023.

Physical Loan Application Deadline Date: 05/22/2023.

Economic Injury (EIDL) Loan Application Deadline Date: 12/22/2023.

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 03/22/2023, 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: Franklin, Knox, Oxford, Somerset, Waldo, York.

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 17834 6 and for economic injury is 17835 0.

(Catalog of Federal Domestic Assistance Number 59008)

Francisco Sánchez, Jr.,

Associate Administrator, Office of Disaster Recovery & Resilience.

[FR Doc. 2023–06497 Filed 3–28–23; 8:45 am]

BILLING CODE 8026–09–P

SMALL BUSINESS ADMINISTRATION

Data Collection Available for Public Comments

ACTION: 60-Day notice and request for comments.

SUMMARY: The Small Business Administration (SBA) intends to request approval, from the Office of Management and Budget (OMB) for the collection of information described below. The Paperwork Reduction Act (PRA) federal agencies to publish a notice in the **Federal Register** concerning each proposed collection of information before submission to OMB, and to allow 60 days for public comment in response to the notice. This notice complies with that requirement.

DATES: Submit comments on or before May 30, 2023.

ADDRESSES: Send all comments to Mary Frias, Loan Specialist, Office of Financial Assistance, Small Business Administration, Washington, DC 20416.

FOR FURTHER INFORMATION CONTACT: Mary Frias, Loan Specialist, 202–401–8234, *mary.frias@sba.gov,* or Curtis B. Rich, Agency Clearance Officer 202–205–7030, *curtis.rich@sba.gov.*

SUPPLEMENTARY INFORMATION: Section 7(a) of the Small Business Act authorizes the Small Business Administration to guaranty loans in each of the 7(a) Programs. The regulations covering these and other loan programs at 13 CFR part 120 require certain information from loan applicants and lenders that is used to determine program eligibility and compliance.

Solicitation of Public Comments

SBA is requesting comments on (a) Whether the collection of information is necessary for the agency to properly perform its functions; (b) whether the burden estimates are accurate; (c) whether there are ways to minimize the burden, including through the use of automated techniques or other forms of information technology; and (d) whether there are ways to enhance the quality, utility, and clarity of the information.

Summary of Information Collection

OMB 3245–0348

Title: Borrower Information Form, Lenders Application for Guaranty, and 7(a) Loan Post Approval Action Checklist.

SBA Forms: 1919, 1920 A, 1920 B, 1920 C, 2237, 2238.

Description of Respondent: 7(A) Program Participants.

Total Estimated Annual Responses: 205,080.

Total Estimated Annual Hour Burden: 43,155.

Curtis Rich,

Agency Clearance Officer.

[FR Doc. 2023–06483 Filed 3–28–23; 8:45 am]

BILLING CODE 8026–09–P

DEPARTMENT OF STATE

[Public Notice 12015]

Notice of Determinations; Culturally Significant Object Being Imported for Exhibition—Determinations: ''Karl Lagerfeld: A Line of Beauty'' Exhibition

SUMMARY: Notice is hereby given of the following determinations: I hereby determine that a certain object being imported from abroad pursuant to an agreement with its foreign owner or custodian for temporary display in the exhibition ''Karl Lagerfeld: A Line of Beauty'' at The Metropolitan Museum of Art, New York, New York, and at possible additional exhibitions or venues yet to be determined, is of cultural significance, and, further, that its temporary exhibition or display within the United States as aforementioned is in the national interest. I have ordered that Public Notice of these determinations be published in the **Federal Register**.

FOR FURTHER INFORMATION CONTACT: Elliot Chiu, Attorney-Adviser, Office of the Legal Adviser, U.S. Department of State (telephone: 202–632–6471; email: *section2459@state.gov*). The mailing address is U.S. Department of State, L/PD, 2200 C Street NW (SA–5), Suite 5H03, Washington, DC 20522–0505.

SUPPLEMENTARY INFORMATION: The foregoing determinations were made pursuant to the authority vested in me by the Act of October 19, 1965 (79 Stat. 985; 22 U.S.C. 2459), E.O. 12047 of March 27, 1978, the Foreign Affairs Reform and Restructuring Act of 1998 (112 Stat. 2681, *et seq.;* 22 U.S.C. 6501 note, *et seq.*), Delegation of Authority No. 234 of October 1, 1999, Delegation of Authority No. 236–3 of August 28,

2000, and Delegation of Authority No. 523 of December 22, 2021.

Scott Weinhold,

Principal Deputy Assistant Secretary for Educational and Cultural Affairs, Bureau of Educational and Cultural Affairs, Department of State.

[FR Doc. 2023–06445 Filed 3–28–23; 8:45 am]

BILLING CODE 4710–05–P

DEPARTMENT OF STATE

[Public Notice 12027]

2021 Global Magnitsky Human Rights Accountability Act Annual Report

ACTION: Notice.

SUMMARY: This notice contains the text of the report required by the Global Magnitsky Human Rights Accountability Act, as submitted by the Secretary of State.

FOR FURTHER INFORMATION CONTACT: Andrew Self, Email: *SelfAH@state.gov,* Phone: (202) 412–3586.

SUPPLEMENTARY INFORMATION: On December 10, 2021,the Secretary of State approved the following report pursuant to the Global Magnitsky Human Rights Accountability Act (Pub. L. 114–328, Title XII, Subtitle F) (''the Act''), which is implemented and built upon by E.O. 13818 of December 20, 2017, ''Executive Order Blocking the Property of Persons Involved in Serious Human Rights Abuse or Corruption''(E.O. 13818). The text of the report follows:

Pursuant to Section 1264 of the Act, and in accordance with E.O. 13818, the Secretary of State, in consultation with the Secretary of the Treasury, submits this report to detail the Administration's implementation of the Act in the 2021 reporting period.

In 2021, the United States took significant action under the Global Magnitsky sanctions program (''Global Magnitsky''), designating 176 foreign persons over the course of the year. As of December 10, 2021, the United States has designated a total of 415 foreign persons (individuals and entities) pursuant to E.O. 13818. This sanctions program, which targets those engaged in serious human rights abuse, corrupt actors, and their enablers, represents the best of the United States' values by taking impactful steps to promote respect for human rights and combat corruption around the world. Through the Act and E.O. 13818, the United States has sought to disrupt and deter serious human rights abuse and corruption abroad; promote accountability for those who act with impunity; and protect and promote longstanding international norms alongside our partners and allies.

As the President outlined in his Interim National Security Strategy (NSS), the United States will stand with our allies and partners to combat new threats aimed at our democracies. The Administration will take special aim at confronting corruption, which rots democracy from the inside, impedes development, and is increasingly weaponized by authoritarian states to undermine democratic institutions. The United States will defend and protect human rights; address discrimination, inequity, and marginalization in all its forms; and stand up for democracy, human rights, and human dignity. On all these issues, the United States will work to forge a common approach with likeminded countries. Through implementation of the Global Magnitsky sanctions program, the Administration is taking action to execute the President's vision as described in the Interim NSS.

On June 3, 2021, the President issued a Memorandum on Establishing the Fight Against Corruption as a Core United States National Security Interest. This Memorandum states that corruption threatens United States national security, economic equity, global anti-poverty and development efforts, and democracy itself. It directs action to bolster the U.S. government to hold accountable corrupt individuals and their facilitators, including by, and where appropriate, identifying, freezing, and recovering stolen assets through sanctions or other authorities; to bolster the capacity of domestic and international institutions and multilateral bodies focused on establishing global anti-corruption norms; and work with international partners to counteract strategic corruption by foreign leaders, foreign state-owned or affiliated enterprises, and other foreign actors and their domestic collaborators. The Global Magnitsky program and cooperation with like-minded international partners directly address each of these objectives.

Actions taken in 2021 continue to demonstrate the reach, flexibility, and broad scope of Global Magnitsky. The United States responded to serious human rights abuse and corruption globally, deterring and disrupting some of the most egregious behavior by foreign actors. These actions targeted, among others, oligarchs engaged in public corruption in Bulgaria, corrupt politicians undermining the rule of law in Central America, and officials connected to serious human rights abuse against members of the Uyghur community in the People's Republic of China's Xinjiang province. These designations clearly demonstrate the Administration's resolve to leverage this important tool judiciously and to strategic effect.

When considering economic sanctions under Global Magnitsky, the United States prioritizes actions that are expected to produce a tangible and significant impact on the sanctioned persons and their affiliates and prompt changes in behavior or disrupt the activities of malign actors. Persons sanctioned pursuant to this authority appear on the Office of Foreign Assets Control's (OFAC's) List of Specially Designated Nationals and Blocked Persons (SDN List). As a result of these actions, all property and interests in property of the sanctioned persons that are in the United States or in the possession or control of U.S. persons, are blocked and must be reported to OFAC. Unless authorized by a general or specific license issued by OFAC or otherwise exempt, OFAC's regulations generally prohibit all transactions by U.S. persons or within (or transiting) the United States that involve any property or interests in property of designated or otherwise blocked persons. The prohibitions include the making of any contribution or provision of funds, goods, or services by, to, or for the benefit of any blocked person or the receipt of any contribution or provision of funds, goods or services from any such person. In 2021, the Secretary of the Treasury, in consultation with the Secretary of State and the Attorney General, imposed financial sanctions on the following persons 176 persons and entities pursuant to E.O. 13818:

1. *Falih al-Fayyadh: Al-Fayyadh was designated on January 8, 2021, for being a foreign person who is a leader or official of an entity that has engaged in, or whose members have engaged in, serious human rights abuse, relating to the leader's or official's tenure. Al-Fayyadh is the Iraqi Popular Mobilization Committee (PMC) Chairman and former National Security Advisor. Al-Fayyadh was the head of the PMC when many of its subcomponents fired live ammunition at peaceful protestors in late 2019, resulting in the death of hundreds of Iraqis. Al-Fayyadh was part of a crisis cell comprised primarily of Popular Mobilization Forces (PMF) militia leaders formed in late 2019 to suppress the Iraqi protests with the support of Iran's Islamic Revolutionary Guard Corps-Qods Force, which was designated pursuant to E.O. 13224 on October 25, 2007.*

2. *Cuban Ministry of Interior (MININT): MININT was designated on January 15, 2021, for being a foreign person who is responsible for or complicit in, or having directly or indirectly engaged in, serious human rights abuse. MININT is responsible for Cuba's internal security, to include controlling Cuba's police, internal security forces, and the country's prison system. Specialized units of MININT's state security branch are responsible for monitoring political activity, and Cuba's police support these security units by arresting persons of interest to MININT. In September 2019, Cuban dissident Jose Daniel Ferrer was held in a MININT-controlled prison in Cuba, where he reported being beaten, tortured, and held in isolation. Additionally, Ferrer received no medical attention while in prison. The Cuban Minister of the Interior, Lazaro Alberto Álvarez Casas, was simultaneously designated for being a foreign person who is the leader or official of MININT, an entity that has engaged in, or whose members have engaged in, serious human rights abuse relating to his tenure. Casas served as the vice minister of MININT until November 25, 2020, when he was promoted to the position of Minister of the Interior.*

3. *The Cuban regime has dispatched security forces to suppress peaceful, pro-democratic demonstrators during protests that began in Cuba in July 2021, deploying units from both MININT and the Cuban Ministry of Revolutionary Armed Forces (MINFAR). The additional individuals and entities designated in connection with the regime's suppression of the protests are:*

- *Brigada Especial Nacional Del Ministerio Del Interior (SNB): The SNB was designated on July 22, 2021, for being owned or controlled by, or for acting or purporting to act for or on behalf of, directly or indirectly, MININT, which, as noted above, was previously designated by OFAC pursuant to the Global Magnitsky program for being a foreign person who is responsible for or complicit in, or having directly or indirectly engaged in, serious human rights abuse. The SNB, also known as the Boinas Negras or Black Berets, is a special forces unit under MININT. During the July 2021 protests, the Cuban government deployed the SNB to suppress and attack protesters.*
- *Alvaro Lopez Miera: Lopez was designated on July 22, 2021, for being a foreign person who is the leader or official of MINFAR, an entity that has engaged in, or whose members have engaged in, serious human rights abuse, relating to his tenure. Lopez is the Cuban Minister of Defense and played an integral role in the repression of ongoing protests in Cuba.*
- *Policia Nacional Revolucionaria (PNR): The PNR was designated on July 30, 2021, for being owned or controlled by, or for acting or purporting to act for or on behalf of, directly or indirectly, MININT. PNR is a police unit under the Cuban MININT that was photographed confronting and arresting protestors in Havana, including the Movement of July 11 Mothers, a group founded to organize families of the imprisoned and disappeared. In Camagüey, a Catholic priest was beaten and arrested by the PNR while he was defending young protesters; officers of the PNR also beat a group of peaceful demonstrators, including several minors. Additionally, there have been several recorded instances in which the PNR used clubs to violently break up peaceful protests across Cuba.*
- *Oscar Alejandro Callejas Valcarce: Callejas was designated on July 30, 2021, for acting or purporting to act for or on behalf of, directly or indirectly, the PNR. Callejas is the Director of the Policia Nacional Revolucionaria (PNR).*
- *Eddy Manuel Sierra Arias: Sierra was designated on July 30, 2021, for acting or purporting to act for or on behalf of, directly or indirectly, the PNR. Sierra is the Deputy Director of the Policia Nacional Revolucionaria (PNR).*
- *Romarico Vidal Sotomayor Garcia: Sotomayor was designated on August 13, 2021, for having acted or purported to act for or on behalf of, directly or indirectly, MININT. Sotomayor is the chief of the Political Directorate of MININT, which has deployed, amongst other forces, the SNB and PNR to respond to the protests. These forces and others have violently attacked and arrested protestors across Cuba.*
- *Pedro Orlando Martinez Fernandez: Martinez was designated on August 13, 2021, for having acted or purported to act for or on behalf of, directly or indirectly, MININT. Martinez is the chief of the Political Directorate of the Policia Nacional Revolucionaria (PNR).*
- *Tropas de Prevencion (TDP): The TDP was designated on August 13, 2021, for being owned or controlled by, or for having acted or purported to act for or on behalf of, directly or indirectly, Alvaro Lopez Miera. The TDP have violently attacked and arrested protestors across Cuba. The TDP, also known as ''Boinas Rojas'' or Red Berets, is a unit of the Revolutionary Armed Forces (FAR) that is commanded by MINFAR and functions as military police. TDP soldiers were deployed during the recent protests, and in one instance have been involved in a violent engagement with a protestor.*
- *Abelardo Jimenez Gonzalez: Jimenez was designated on August 19, 2021, for having acted or purported to act for or on behalf of, directly or indirectly, MININT, a person whose property and interests in property are blocked pursuant to E.O. 13818. Jimenez is the Chief of the Directorate of Penitentiary Establishments, under MININT; in this role, he is responsible for the treatment and disposition of people imprisoned in Cuba. Cuban security forces have detained more than 800 people in response to the protests, with many being held in ''preventative jail,'' and the whereabouts of multiple people are still unknown.*
- *Andres Laureano Gonzalez Brito: Gonzalez was designated on August 19, 2021, for being a foreign person who is or has been a leader or official of an entity, including any government entity, that has engaged in, or whose members have engaged in, directly or indirectly, serious human rights abuse relating to Gonzalez's tenure. Gonzalez is the Chief of the Central Army, under the Cuban Ministry of Revolutionary Armed Forces (MINFAR).*
- *Roberto Legra Sotolongo: Legra was designated on August 19, 2021, for being a foreign person who is or has been a leader or official of an entity, including any government entity, that has engaged in, or whose members have engaged in, directly or indirectly, serious human rights abuse relating to Legra's tenure. Legra is the Deputy Chief of the General Staff, and Chief of the Directorate of Operations of the Revolutionary Armed Forces (FAR), under MINFAR, which deployed the TDP in response to the demonstrations.*

4. *Ahmad Hassan Mohammed Al Asiri: Asiri was designated on February 26, 2021, for being a foreign person who is responsible for or complicit in, or has directly or indirectly engaged in, serious human rights abuse. Asiri is the former Deputy Head of Saudi Arabia's General Intelligence Presidency. Asiri was the ringleader of the operation and coordinated with Saud Al-Qahtani to organize and dispatch the 15-man team to murder and dismember Khashoggi on October 2, 2018, inside the Saudi Consulate in Turkey.*

5. *Rapid Intervention Force (RIF): Saudi Arabia's RIF was designated on February 26, 2021, for being owned or controlled by, or having acted or purported to act for or on behalf of, directly or indirectly, al-Qahtani, a person whose property and interests in property are blocked pursuant to E.O. 13818. Several members of the hit squad sent to intercept Khashoggi were part of the RIF, also known as the ''Tiger Squad'' or Firqat el-Nemr.*

6. *Wang Junzheng: Junzheng was designated on March 22, 2021, for having acted or purported to act for or on behalf of, directly or indirectly, the Xinjiang Production and Construction Corps (XPCC). Junzheng is Secretary of the Party Committee of the XPCC. The XPCC is a paramilitary organization in the XUAR that is subordinate to the Chinese Communist Party (CCP) and was designated on July 31, 2020, for its connection to serious human rights abuse against members of ethnic minority groups in Xinjiang, which reportedly includes arbitrary detention and severe physical abuse, among other serious human rights abuses targeting Uyghurs, a Turkic Muslim population indigenous to Xinjiang, and members of other ethnic minority groupies in the region.*

7. *Chen Mingguo: Mingguo was designated on March 22, 2021, for being a foreign person who is or has been a leader or official of the Xinjiang Public Security Bureau (XPSB), an entity, including a government entity, that has engaged in, or whose members have engaged in, serious human rights abuse relating to Chen's tenure. Mingguo is Director of the XPSB. The XPSB was designated on July 9, 2020, for being a foreign entity responsible for, or complicit in, or that has directly or indirectly engaged in, serious human rights abuse against members of ethnic minority groupies in Xinjiang, which reportedly includes arbitrary detention and severe physical abuse, among other serious human rights abuses targeting Uyghurs, a Turkic Muslim population indigenous to Xinjiang, and members of other ethnic minority groupies in the region.*

8. *Gustavo Adolfo Alejos Cambara: Cambara was designated on April 26, 2021, for being foreign person who is a current or former government official, or a person acting for or on behalf of such an official, who is responsible for or complicit in, or who has directly or indirectly engaged in, corruption, including the misappropriation of state assets, the expropriation of private assets for personal gain, corruption related to government contracts or the extraction of natural resources, or bribery. Cambara was the former Chief of Staff for the Alvaro Colom presidential administration. Cambara had been seeking to influence the judicial selection process for magistrates to the Guatemala Supreme Court of Justice (CSJ) and Court of Appeals. To do this, Cambara reportedly facilitated payments to congressional representatives and judges on the CSJ, to influence an outcome at both institutions that would secure Cambara's future release from prison, dismiss the corruption charges against him, and protect accomplices from future prosecution due to corruption.*

9. *Felipe Alejos Lorenzana: Lorenzana was designated on April 26, 2021, for being foreign person who is a current or former government official, or a person acting for or on behalf of such an official, who is responsible for or complicit in, or who has directly or indirectly engaged in, corruption, including the misappropriation of state assets, the expropriation of private assets for personal gain, corruption related to government contracts or the extraction of natural resources, or bribery. Lorenzana was an elected delegate to the Congress of the Republic of Guatemala for the 2020–2024 term. Lorenzana is a close associate of Cambara, and allegedly facilitated bribes and payments from private construction firms for ongoing or potential state infrastructure contracts to congressional representatives, with the goal of ensuring congressional support of Constitutional Court magistrates and alternates, who would support a future Constitutional Court ruling favoring Lorenzana's own immunity, keeping Lorenzana and other congressional representatives out of jail.*

10. *Vassil Kroumov Bojkov: Bojkov was designated on June 2, 2021, for being a person who has materially assisted, sponsored, or provided financial, material, or technological support for, or goods or services to or in support of corruption, including the misappropriation of state assets, the expropriation of private assets for personal gain, corruption related to government contracts or the extraction of natural resources, or bribery. Bojkov is a prominent Bulgarian businessman and oligarch who has bribed government officials on several occasions. In addition to Bojkov, OFAC designated 58 entities registered in Bulgaria that are owned or controlled by Bojkov or one of his companies. This was the single largest one-day tranche of designations in the history of the Global Magnitsky program.*

11. *Delyan Slavchev Peevski: Peevski was designated on June 2, 2021, for being a foreign person who is a current or former government official, or person acting for or on behalf of such an official, who is responsible for or complicit in, or who has directly or indirectly engaged in, corruption, including the misappropriation of state assets, the expropriation of private assets for personal gain, corruption related to government contracts or the extraction of natural resources, or bribery. Peevski is an oligarch who previously served as a Bulgarian MP and media mogul who regularly engaged in corruption, using influence peddling and bribes to protect himself from public scrutiny and exert control over key institutions and sectors in Bulgarian society. In September 2019, Peevski actively worked to negatively influence the Bulgarian political process in the October 27, 2019, municipal election. Peevski negotiated with politicians to provide them with political support and positive media coverage in return for receiving protection from criminal investigations. In addition to Peevski, OFAC designated six entities registered in Bulgaria that are owned or controlled by Peevski or one of his companies.*

12. *Ilko Dimitrov Zhelyazkov: Zhelyazkov was designated on June 2, 2021, for being a foreign person who is a current or former government official, or person acting for or on behalf of such an official, who is responsible for or complicit in, or who has directly or indirectly engaged in, corruption, including the misappropriation of state assets, the expropriation of private assets for personal gain, corruption related to government contracts or the extraction of natural resources, or bribery. Zhelyazkov is the former Deputy Chief of the Bulgarian State Agency for Technical Operations and former Bulgarian State Agency for National Security (DANS) officer who was appointed to the National Bureau for Control on Special Intelligence-Gathering Devices. Peevski used Zhelyazkov to conduct a bribery scheme involving Bulgarian residency documents for foreign persons, as well as to bribe government officials through various means in exchange for their information and loyalty.*

13. *Filipos Woldeyohannes: Woldeyohannes was designated on August 23, 2021, for being a foreign person who is a leader or official of an entity, including any government entity, that has engaged in or whose members have engaged in, serious human rights abuse relating to his tenure. General Woldeyohannes is the Chief of Staff of the Eritrean Defense Forces (EDF). In this role, he commands the EDF forces that have been operating in Ethiopia. The EDF are responsible for massacres, looting, and sexual assaults. EDF troops have raped, tortured, and executed civilians; they have also destroyed property and ransacked businesses. The EDF have purposely shot civilians in the street and carried out systematic house-to-house searches, executing men and boys, and have forcibly evicted Tigrayan families from their residences and taken over their houses and property.*

14. *Kassem Mohamed Hijazi: Kassem Hijazi was designated on August 24, 2021, for being a foreign person who has materially assisted, sponsored, or provided financial, material, or technological support for, or goods or services to or in support of corruption, including the misappropriation of state assets, corruption related to government contracts, or the extraction of natural resources, or bribery. Operating as a despachante, or dispatcher, in Paraguay since at least 2017, Kassem Hijazi commands and controls a money laundering organization based out of Ciudad Del Este, Paraguay, which operates on a global scale with the capability to launder hundreds of millions of dollars. OFAC also designated Espana Informatica S.A. and three other entities, as they are owned or controlled by Kassem Hijazi.*

15. *Khalil Ahmad Hijazi: Khalil Hijazi was designated on August 24, 2021, for being a foreign person who has materially assisted, sponsored, or provided financial, material, or technological support for, or goods or services to or in support of Kassem. Khalil Hijazi is designated for being a foreign person who has materially assisted, sponsored, or provided financial, material, or technological support for, or goods or services to or in support of Kassem Hijazi.*

16. *Liz Paola Doldan Gonzalez: Doldan was designated on August 24, 2021, for being a foreign person who has materially assisted, sponsored, or provided financial, material, or technological support for, or goods or services to or in support of corruption, including the misappropriation of state assets, corruption related to government contracts, or the extraction of natural resources, or bribery. Doldan was identified as an intermediary working with Kassem Hijazi who works with shipments from the United States. Doldan used her company based in Paraguay, Mobile Zone International Import-Export S.R.L. (Mobile Zone), to purchase goods from a company based in Miami, Florida, which would subsequently send these goods to several shell companies in Paraguay. As the goods would enter the country destined for these shell companies, Paraguayan Customs would identify the cell phones as cheaper goods, such as printers and printer toner, to simulate the importation of lower-cost items, a practice that would allow Mobile Zone to pay less tax on the imports. Mobile Zone was also designated by OFAC.*

17. *Chau Phirun: Phirun was designated on November 10, 2021, for being a foreign person who is a current or former government official, or person acting for or on behalf of such an official, who is responsible for or complicit in, or have directly or indirectly engaged in, corruption, including the misappropriation of state assets, the expropriation of private assets for personal gain, corruption related to government contracts or the extraction of natural resources, or bribery. Phirun is the Director-General of the Defense Ministry's Material and Technical Services Department who conspired to profit from activities regarding the construction and updating of Ream Naval Base facilities.*

18. *Tea Vinh: Vinh was designated on November 10, 2021, for being a foreign person who is a current or former government official, or person acting for or on behalf of such an official, who is responsible for or complicit in, or have directly or indirectly engaged in, corruption, including the misappropriation of state assets, the expropriation of private assets for personal gain, corruption related to government contracts or the extraction of natural resources, or bribery. Vinh is the Royal Cambodian Navy Commander. Along with Chau Phirun, Vinh likely conspired to inflate the cost of facilities at Ream Naval Base and personally benefit from the proceeds. Phirun and Vinh planned to share funds skimmed from the Ream Naval Base project.*

19. *Alain Mukonda Mayandu: Mukonda was designated on December 6, 2021, for having materially assisted, sponsored, or provided financial, material, or technological support for, or goods or services to or in support of Gertler, a person whose property and interests in property are blocked pursuant to E.O. 13818. Mukonda made 16 cash deposits totaling between 11 and 13.5 million dollars into accounts of companies he incorporated that ultimately belong to Gertler's family. He also re-domiciled several of Gertler's companies from Gibraltar and the British Virgin Islands to the DRC.*

20. *11 entities based in the DRC, as well as one entity in Gibraltar, which are owned or controlled by Mukonda, were designated: Kintaleg Limited, Ventora Global Services, Ventora Mining S.A.S.U., Ashdale Settlement Gerco SAS, Opera, Palatina SARLU, Gemini S.A.S.U., Kaltona Limited SASU, Multree Limited SASU, Rosehill DRC SASU, Woodhaven DRC SASU, Woodford Enterprises Limited SASU.*

21. *Abel Kandiho: Kandiho was designated on December 7, 2021, for being a foreign person who is or has been a leader or official of an entity that has engaged in, or whose members have engaged in, serious human rights abuse relating to his tenure. Kandiho is the commander of the Ugandan Chieftaincy of Military Intelligence (CMI). CMI officers have arrested, detained, and physically abused Ugandan citizens. The CMI targeted individuals due to their political views or critique of the Ugandan government. Individuals were taken into custody and held, often without legal proceedings, at CMI detention facilities where they were subjected to horrific beatings and other egregious acts by CMI officials, including electrocutions, often resulting in significant long-term injury and even death. During these incarcerations, victims were kept in solitary confinement and unable to contact friends, family, or legal support. Kandiho was personally involved leading interrogations of detained individuals while they were mistreated.*

22. *Zvonko Veselinovic and criminal network: Veselinovic was designated on December 8, 2021, for being a foreign person who is or has been a leader or official of an entity, including any government entity, that has engaged in, or whose members have engaged in, corruption, including the misappropriation of state assets, the expropriation of private assets for personal gain, corruption related to government contracts or the extraction of natural resources, or bribery, related to their tenure. Veselinovic is the leader of the Zvonko Veselinovic Organized Crime Group (OCG), one of Kosovo's most notorious corrupt figures. Milan Rajko Radojcic and Zharko Veselinovic were also designated for being foreign persons who are or have been a leader or official of an entity, including any government entity, that has engaged in, or whose members have engaged in, corruption, including the misappropriation of state assets, the expropriation of private assets for personal gain, corruption related to government contracts or the extraction of natural resources, or bribery, related to their tenure. The Veselinovic OCG is engaged in a large-scale bribery scheme with Kosovo and Serbian security officials who facilitate the group's illicit trafficking of goods, money, narcotics, and weapons between Kosovo and Serbia. The group has also conspired with various politicians in several quid pro quo agreements. Zeljko Bojic is being designated for having materially assisted, sponsored, or provided financial, material, or technological support for, or goods or services to or in support of Veselinovic.*

23. *On December 8, 2021, nine associates were designated that have acted for or on Veselinovic's behalf: Marko Rosic, Andrija Zheljko Bojic,*

Srdjan Milivoje Vulovic, Milan Mihajlovic, Miljan Radisavljevic, Miljojko Radisavljevic, Radovan Radic, Sinisa Nedeljkovic, and Radule Stevic. Twenty-four entities across Europe that are owned or controlled by members of the Veselinovic OCG were also designated.

24. *Osiris Luna Meza (Luna) and Carlos Amilcar Marroquin Chica (Marroquin), Alma Yanira Meza Olivares (Meza): Luna and Marroquin were designated on December 8, 2021, for being foreign persons who are current or former government officials, or persons acting for or on behalf of such an official, who are responsible for or complicit in, or have directly or indirectly engaged in, corruption, including the misappropriation of state assets, the expropriation of private assets for personal gain, corruption related to government contracts or the extraction of natural resources, or bribery; and Meza was designated for having materially assisted, sponsored, or provided financial, material, or technological support for, or goods or services to or in support of,Luna. Luna is the Chief of the Salvadoran Penal System and Vice Minister of Justice and Public Security. Marroquin is the Chairman of the Social Fabric Reconstruction Unit. Luna and Marroquin led, facilitated, and organized several secret meetings involving incarcerated gang leaders, in which known gang members were allowed to enter the prison facilities and meet with senior gang leadership to facilitate command and control of this transnational organization. These meetings were part of the Government of El Salvador's efforts to negotiate a secret truce with gang leadership. Over the course of these negotiations with Luna and Marroquin, gang leadership also agreed to provide political support to the Nuevas Ideas political party in upcoming elections. Separately, Luna participated in a scheme to steal and re-sell government purchased staple goods that were originally destined for COVID–19 pandemic relief. Luna's mother, Meza, acted as the negotiator in some of these transactions.*

25. *Martha Carolina Recinos De Bernal: Recinos was designated on December 9, 2021, for being a foreign person who is a current or former government official, or person acting for or on behalf of such an official, who is responsible for or complicit in, or has directly or indirectly engaged in, corruption, including the misappropriation of state assets, the expropriation of private assets for personal gain, corruption related to government contracts or the extraction of natural resources, or bribery. Recinos is the Chief ofCabinet in the Bukele administration and was designated in connection with corruption in the administration's handling of COVID–19 related assistance including significant markups of donated personal protective equipment and other medical aid for their personal benefit.*

26. *Manuel Victor Martinez Olivet: Martinez was designated on December 9, 2021, for being a foreign person who is a current or former government official, or person acting for or on behalf of such an official, who is responsible for or complicit in, or has directly or indirectly engaged in, corruption, including the misappropriation of state assets, the expropriation of private assets for personal gain, corruption related to government contracts or the extraction of natural resources, or bribery. During his tenure as the Director of the Santa Rosa Health Area within the Guatemalan Ministry of Public Health, Martinez engaged in various acts of misappropriation, fraud, abuse of authority and favored companies related to his family and directly awarded contracts to them without going through the public bidding process, circumventing the regular procurement process.*

27. *ARC Resources Corporation Limited (ARC Resources) and Winners Construction Company Limited (Winners): ARC Resources and Winners were designated on December 9, 2021, for being owned or controlled by Benjamin Bol Mel (Bol Mel), an individual previously included in the Annex of E.O. 13818 in December 2017 in South Sudan. Bol Mel previously oversaw ABMC Thai-South Sudan Construction Company Limited (ABMC), which was awarded contracts worth tens of millions of dollars by the Government of South Sudan (GoSS) and allegedly received preferential treatment from high-level officials in a non-competitive process for selecting ABMC to do roadwork throughout South Sudan. ARC Resources is linked to ABMC and has been used by senior members of the South Sudanese transitional government for laundering money. Both ARC Resources and Winners have been used to evade sanctions and travel restrictions on Bol Mel and have been awarded noncompetitive and substantial oil-backed contracts from the GoSS for road construction.*

28. *Prince Yormie Johnson: Johnson was designated on December 9, 2021, for being a foreign person who is a current or former government official, or a person acting for or on behalf of such an official, who is responsible for or complicit in, or has directly or indirectly engaged in, corruption, including the misappropriation of state assets, the expropriation of private assets for personal gain, corruption related to government contracts or the extraction of natural resources, or bribery. Johnson is a former warlord, former Chairman of the Senate Committee on National Security, Defense, Intelligence, and Veteran Affairs and a current member of the Liberian Senate. As a Senator, Johnson was involved in pay for play funding with government ministries and organizations for personal enrichment. As part of the scheme, upon receiving funding from the Government of Liberia, the government ministries and organizations launder a portion of the funding for return to the involved participants.*

29. *Andriy Portnov: Portnov was designated on December 9, 2021, for being a foreign person who is a current or former government official, or a person acting for or on behalf of such an official, who is responsible for or complicit in, or has directly or indirectly engaged in, corruption, including the misappropriation of state assets, the expropriation of private assets for personal gain, corruption related to government contracts or the extraction of natural resources, or bribery. Portnov is the former Deputy Head of the Ukrainian Presidential Administration under former President Yanukovych. Portnov has taken steps to control the Ukrainian judiciary, influence associated legislation, sought to place loyal officials in senior judiciary positions, and purchase court decisions. Portnov colluded with Ukrainian government officials to shape the country's higher legal institutions to their advantage,and influence Ukraine's Constitutional Court. Portnovwas also involved in an attempt to influencea Ukrainian Prosecutor General.*

30. *The Andriy Portnov Fund was designated on December 9, 2021, for being owned and controlled by Portnov.*

31. *Fragoso do Nascimento and Manuel Helder Vieira Dias Junior: Nascimento and Dias Junior were designated on December 9, 2021, for being foreign persons who are current or former government officials, or persons acting for or on behalf of such an official, who are responsible for or complicit in, or has directly or indirectly engaged in, corruption, including the misappropriation of state assets, the expropriation of private assets for personal gain, corruption related to government contracts or the extraction of natural resources, or bribery. Both are government officials that were discovered to have stolen billions of dollars from the Angolan government*

through embezzlement. Baia Consulting Limited (Baia) was also designated on December 9, 2021, for being owned or controlled by Dias Junior, and Luisa De Fatima Giovetty was designated for materially assisting, sponsoring, or providing financial, material, or technological support for, or goods or services to or in support of, Baia, a person whose property and interests in property are blocked.

32. *Four entities were designated on December 9, 2021, that are owned or controlled by Nascimento.*

33. *Shohrat Zakir: Zakir was designated on December 10, 2021, for being a foreign person who is or has been a leader or official of an entity that has engaged in, or whose members have engaged in, serious human rights abuse relating to his tenure. Zakir served as the Chairman of the Xinjiang Uyghur Autonomous Region of China (XUAR) from 2014 until 2021 and as Deputy Secretary for the Party Standing Committee of XUAR since 2014. During his tenure, up to two million Uyghurs and members of other predominantly Muslim ethnic minority groups have been detained in Xinjiang. On July 9, 2020, OFAC designated the Xinjiang Public Security Bureau (XPSB), a constituent department of the XUAR, for its role in the serious human rights abuse that has occurred in Xinjiang since at least late 2016.*

34. *Erken Tuniyaz: Tuniyaz was designated on December 10, 2021, for being a foreign person who is or has been a leader or official of an entity that has engaged in, or whose members have engaged in, serious human rights abuse relating to his tenure. Tuniyaz serves as the acting Chairman of the XUAR and had served as the Vice Chairman of the XUAR since 2008. During his tenure, up to two million Uyghurs and members of other predominantly Muslim ethnic minority groups have been detained in Xinjiang. On July 9, 2020, OFAC designated the Xinjiang Public Security Bureau (XPSB), a constituent department of the XUAR, for its role in the serious human rights abuse that has occurred in Xinjiang since at least late 2016.*

35. *Rapid Action Battalion (RAB): The RAB was designated on December 10, 2021, for being a foreign entity who is responsible for or complicit in, or has directly or indirectly engaged in, serious human rights abuse. NGOs have alleged that RAB and other Bangladeshi law enforcement are responsible for more than 600 disappearances since 2009, nearly 600 extrajudicial killings since 2018, and torture. Some reports suggest these incidents target opposition party members, journalists, and human rights activists.*

The following individuals are designated in connection with the RAB:

- *Chowdhury Abdullah Al-Mamun: Al-Mamun was designated on December 10, 2021, for being a foreign person who is or has been a leader or official of RAB, an entity that has engaged in, or whose members have engaged in, serious human rights abuse relating to his tenure. Al-Mamun serves as the Director General of RAB since April 15, 2020.*
- *Benazir Ahmed: Ahmed was designated on December 10, 2021, for being a foreign person who is or has been a leader or official of RAB, an entity that has engaged in, or whose members have engaged in, serious human rights abuse relating to his tenure. Ahmed served as Director General of RAB from January 2015 to April 14, 2020.*
- *Khan Mohammad Azad: Azad was designated on December 10, 2021, for being a foreign person who is or has been a leader or official of RAB, an entity that has engaged in, or whose members have engaged in, serious human rights abuse relating to his tenure. Azad serves as Additional Director General of Operations of RAB since March 16, 2021.*
- *Tofayel Mustafa Sorwar: Sorwar was designated on December 10, 2021, for being a foreign person who is or has been a leader or official of RAB, an entity that has engaged in, or whose members have engaged in, serious human rights abuse relating to his tenure. Sorwar served as Additional Director General Operations of RAB from June 27, 2019 to March 16, 2021.*
- *Mohammad Jahangir Alam: Alam was designated on December 10, 2021, for being a foreign person who is or has been a leader or official of RAB, an entity that has engaged in, or whose members have engaged in, serious human rights abuse relating to his tenure. Alam served as Additional Director General Operations of RAB from September 17, 2018 to June 27, 2019.*
- *Mohammad Anwar Latif Khan: Khan was designated on December 10, 2021, for being a foreign person who is or has been a leader or official of RAB, an entity that has engaged in, or whose members have engaged in, serious human rights abuse relating to his tenure. Khan served as Additional Director General Operations of RAB from April 28, 2016 to September 17, 2018.*

Visa Restrictions Imposed

Although no visa restrictions were imposed under the Act during 2021, persons designated pursuant to E.O. 13818 shall be subject to the visa restrictions articulated in section 2, unless an exception applies. Section 2 provides that the entry of persons designated under section 1 of the order is suspended pursuant to Presidential Proclamation 8693. In 2021, the State Department also applied, when appropriate, visa restrictions on foreign persons involved in significant corruption or a gross violation of human rights under other authorities, reported to Congress through other means. As appropriate, the Department of State will take additional action to impose visa restrictions on those responsible for certain human rights violations and significant corruption pursuant to other authorities, including Presidential Proclamations 7750 and 8697, and Section 7031(c) of the FY2021 Department of State, Foreign Operations, and Related Programs, as carried forward by the FY2022 Continuing Appropriations Act, 2022. In addition, section 212(a)(3)(E) of the Immigration and Nationality Act renders aliens ineligible for visas if a consular officer has reason to believe that they participated in acts of genocide, torture or extra judicial killings.

Efforts To Encourage Governments of Other Countries To Impose Sanctions Similar to Those Authorized by the Act

In 2021, the Administration continued its successful outreach campaign to international partners regarding the expansion of domestic and multilateral anticorruption and human rights sanctions regimes. On March 22, 2021, the United States, United Kingdom, and Canada, in unity with the European Union, coordinated action to sanction those connected to serious human rights abuse in the Xinjiang region of China. The UK established its Global Anti-Corruption Sanctions regime in April 2021. This program was announced with coordinated concurrent designations with the United States. During this reporting period, Australia conducted a review of its thematic sanctions programs, with legislation to amend their authorities introduced to Parliament in November 2021 and enacted on December 2, 2021. Over the course of the reporting period, the Administration worked closely with the like-minded partners in pursuing coordinated actions against human rights abusers and corrupt actors. Throughout this and future outreach,

the Administration has identified and will continue to identify champions, partners, and potential spoilers of the objectives established by Congress within the Act. The Departments of State and the Treasury have, over the last year, shared information, coordinated messaging, and provided technical assistance to this end. The Administration will continue to seek out additional allies and partners to jointly leverage all tools at our disposal to deny access to the U.S. and international financial systems and deny entry to the United States to all those who engage in serious human rights abuse and corruption.

Alexandra King-Pile,

Economic Officer, Department of State.

[FR Doc. 2023–06464 Filed 3–28–23; 8:45 am]

BILLING CODE 4710–AE–P

SURFACE TRANSPORTATION BOARD

[Docket No. AB 6 (Sub-No. 501X)]

BNSF Railway Company—Abandonment Exemption—in Contra Costa County, Cal.

BNSF Railway Company (BNSF) has filed a verified notice of exemption under 49 CFR part 1152 subpart F—*Exempt Abandonments* to abandon approximately 0.79 miles of rail line known as Line Segment 7258 between approximately milepost 1190.9 and approximately milepost 1191.69 in Contra Costa County, Cal. (the Line). The Line traverses U.S. Postal Service Zip Code 94801.

BNSF has certified that: (1) no local traffic has moved over the Line for at least two years; (2) there is no overhead traffic on the Line; (3) no formal complaint filed by a user of rail service on the Line (or by state or local government on behalf of such user) regarding cessation of service over the Line either is pending with the Surface Transportation Board (Board) or has been decided in favor of a complainant within the two-year period; and (4) the requirements at 49 CFR 1105.7(b) and 1105.8(c) (notice of environmental and historic reports), 49 CFR 1105.12 (newspaper publication), and 49 CFR 1152.50(d)(1) (notice to government agencies) have been met.

As a condition to this exemption, any employee adversely affected by the abandonment shall be protected under *Oregon Short Line Railroad—Abandonment Portion Goshen Branch Between Firth & Ammon, in Bingham & Bonneville Counties, Idaho,* 360 I.C.C. 91 (1979). To address whether this condition adequately protects affected employees, a petition for partial revocation under 49 U.S.C. 10502(d) must be filed.

Provided no formal expression of intent to file an offer of financial assistance (OFA) has been received,[1] this exemption will be effective on April 28, 2023, unless stayed pending reconsideration. Petitions to stay that do not involve environmental issues[2] must be filed by April 7, 2023. Formal expressions of intent to file an OFA under 49 CFR 1152.27(c)(2) and interim trail use/rail banking requests under 49 CFR 1152.29 must be filed by April 10, 2023.[3] Petitions to reopen or requests for public use conditions under 49 CFR 1152.28 must be filed by April 18, 2023.

All pleadings, referring to Docket No. AB 6 (Sub-No. 501X), must be filed with the Surface Transportation Board either via e-filing on the Board's website or in writing addressed to 395 E Street SW, Washington, DC 20423–0001. In addition, a copy of each pleading must be served on BNSF's representative, Peter W. Denton, Steptoe & Johnson LLP, 1330 Connecticut Ave. NW, Washington, DC 20036.

If the verified notice contains false or misleading information, the exemption is void ab initio.

BNSF has filed a combined environmental and historic report that addresses the potential effects, if any, of the abandonment on the environment and historic resources. OEA will issue a Draft Environmental Assessment (Draft EA) by April 3, 2023. The Draft EA will be available to interested persons on the Board's website, by writing to OEA, or by calling OEA at (202) 245–0294. If you require an accommodation under the Americans with Disabilities Act, please call (202) 245–0245. Comments on environmental or historic preservation matters must be filed within 15 days after the Draft EA becomes available to the public.

Environmental, historic preservation, public use, or trail use/rail banking conditions will be imposed, where appropriate, in a subsequent decision.

Pursuant to the provisions of 49 CFR 1152.29(e)(2), BNSF shall file a notice of consummation with the Board to signify that it has exercised the authority granted and fully abandoned the Line. If consummation has not been effected by BNSF's filing of a notice of consummation by March 29, 2024, and there are no legal or regulatory barriers to consummation, the authority to abandon will automatically expire.

Board decisions and notices are available at *www.stb.gov.*

Decided: March 24, 2023.

By the Board, Mai T. Dinh, Director, Office of Proceedings.

Jeffrey Herzig,

Clearance Clerk.

[FR Doc. 2023–06538 Filed 3–28–23; 8:45 am]

BILLING CODE 4915–01–P

[1] Persons interested in submitting an OFA must first file a formal expression of intent to file an offer, indicating the type of financial assistance they wish to provide (*i.e.,* subsidy or purchase) and demonstrating that they are preliminarily financially responsible. *See* 49 CFR 1152.27(c)(2)(i).

[2] The Board will grant a stay if an informed decision on environmental issues (whether raised by a party or by the Board's Office of Environmental Analysis (OEA) in its independent investigation) cannot be made before the exemption's effective date. *See Exemption of Out-of-Serv. Rail Lines,* 5 I.C.C.2d 377 (1989). Any request for a stay should be filed as soon as possible so that the Board may take appropriate action before the exemption's effective date.

[3] Filing fees for OFAs and trail use requests can be found at 49 CFR 1002.2(f)(25) and (27), respectively.

DEPARTMENT OF THE TREASURY

Office of Foreign Assets Control

Notice of OFAC Sanctions Actions

AGENCY: Office of Foreign Assets Control, Treasury.

ACTION: Notice.

SUMMARY: The U.S. Department of the Treasury's Office of Foreign Assets Control (OFAC) is publishing the names of one or more persons that have been placed on OFAC's Specially Designated Nationals and Blocked Persons List (SDN List) based on OFAC's determination that one or more applicable legal criteria were satisfied. All property and interests in property subject to U.S. jurisdiction of these persons are blocked, and U.S. persons are generally prohibited from engaging in transactions with them.

DATES: See **SUPPLEMENTARY INFORMATION** section for applicable date(s).

FOR FURTHER INFORMATION CONTACT: OFAC: Associate Director for Global Targeting, tel.: 202–622–2420; Assistant Director for Licensing, tel.: 202–622–2480; Assistant Director for Regulatory Affairs, tel.: 202–622–4855; or Assistant Director for Sanctions Compliance & Evaluation, tel.: 202–622–2490.

SUPPLEMENTARY INFORMATION:

Electronic Availability

The SDN List and additional information concerning OFAC sanctions programs are available on OFAC's website (*https://www.treasury.gov/ofac*).

Notice of OFAC Actions

On March 24, 2023, OFAC determined that the property and

interests in property subject to U.S. jurisdiction of the following persons are blocked under the relevant sanctions authority listed below.

Individuals

1. LATT, Tun Min, 201, Tetkatho Yeikmon Condo-C, New University Avenue, Bahan Township, Yangon 11201, Burma; 45 Zayathukha Road, 54-Thuwunna Thingangyun Township, Yangon 11072, Burma; DOB 06 Feb 1969; POB Yangon, Burma; nationality Burma; Gender Male; Passport ME444441 (Burma) issued 13 Sep 2019 expires 12 Sep 2024; National ID No. 12/DAGANAN004114 (Burma) (individual) [BURMA–EO14014].

Designated pursuant to section 1(a)(i) of Executive Order 14014 of February 10, 2021, ''Blocking Property With Respect to the Situation in Burma'' (''E.O. 14014'') for operating in the defense sector of the Burmese economy or any other sector of the Burmese economy as may be determined by the Secretary of the Treasury, in consultation with the Secretary of State.

2. SOE, Win Min, 201, Tetkatho Yeikmon Condo-C, New University Avenue, Bahan Township, Yangon 11201, Burma; 45 Zayathukha Road, 54-Thuwunna Thingangyun Township, Yangon, Burma; DOB 26 Mar 1969; POB Mandalay, Burma; nationality Burma; Gender Female; Passport MD222228 (Burma) issued 15 May 2018 expires 14 May 2023; National ID No. 9/MANAMAN031190 (Burma) (individual) [BURMA–EO14014] (Linked To: LATT, Tun Min).

Designated pursuant to section 1(a)(v) of E.O. 14014 for being a spouse or adult child of TUN MIN LATT, a person whose property and interests in property are blocked pursuant to E.O. 14014.

Entities

1. ASIA SUN GROUP (a.k.a. ASIA SUN GROUP COMPANY LIMITED), Yangon-Insein Road No. 218, Building A, 16 Floor, Room A, Hlaing Township, Yangon Region, Burma; Organization Established Date 29 Mar 2012; Organization Type: Activities of holding companies; Business Registration Number 104355110 (Burma) [BURMA–EO14014].

Designated pursuant to section 1(a)(i) of E.O. 14014 for operating in the defense sector of the Burmese economy or any other sector of the Burmese economy as may be determined by the Secretary of the Treasury, in consultation with the Secretary of State.

2. ASIA SUN TRADING CO. LTD. (a.k.a. ASIA SUN TRADING COMPANY LIMITED; a.k.a. ''ASIA SUN TRADING''), Ubc Tower, Unit 04–01, 4th Floor, Bo Cho Quarter, Bahan, Yangon Region, Burma; Organization Established Date 16 Dec 2015; Organization Type: Wholesale of solid, liquid and gaseous fuels and related products; Business Registration Number 104099424 (Burma) [BURMA–EO14014].

Designated pursuant to section 1(a)(i) of E.O. 14014 for operating in the defense sector of the Burmese economy or any other sector of the Burmese economy as may be determined by the Secretary of the Treasury, in consultation with the Secretary of State.

3. CARGO LINK PETROLEUM LOGISTICS CO. LTD. (a.k.a. CARGO LINK PETROLEUM LOGISTICS COMPANY LIMITED; f.k.a. CARGO LINK PONGRAWE LOGISTICS COMPANY LIMITED), No. 1009, Shwe Hin Thar Condo, Tower C1, Hlaing Township, Yangon Region, Burma; Organization Established Date 31 Oct 2016; Organization Type: Wholesale of solid, liquid and gaseous fuels and related products; Business Registration Number 112973281 (Burma) [BURMA–EO14014].

Designated pursuant to section 1(a)(i) of E.O. 14014 for operating in the defense sector of the Burmese economy or any other sector of the Burmese economy as may be determined by the Secretary of the Treasury, in consultation with the Secretary of State.

4. STAR SAPPHIRE GROUP OF COMPANIES (a.k.a. KYEI NILAR COMPANY; a.k.a. KYEI NILAR COMPANY LIMITED; a.k.a. KYEI NILAR COMPANY LTD.; a.k.a. STAR SAPPHIRE CO. LTD.; a.k.a. STAR SAPPHIRE COMPANY LIMITED; a.k.a. STAR SAPPHIRE GROUP), No. 30 B, Room 701/702, Yadanar Inya Condo, Than Lwin Road, Bahan Township, Yangon, Burma; Room 201, Building C, Takhatho Yeikmon Housing, New University Avenue Road, Bahan, Yangon, Burma; Organization Established Date 18 Nov 1999; Organization Type: Activities of holding companies [BURMA–EO14014] (Linked To: LATT, Tun Min).

Designated pursuant to section 1(a)(vii) of E.O. 14014 for being owned or controlled by, or for having acted or purported to act for or on behalf of, directly or indirectly, TUN MIN LATT, a person whose property and interests in property are blocked pursuant to E.O. 14014.

5. STAR SAPPHIRE GROUP PTE. LTD., 1 North Bridge Road, #30–00, High Street Centre, Singapore 179094, Singapore; Organization Established Date 20 Aug 2014; Organization Type: Non-specialized wholesale trade; Tax ID No. 201424367R (Singapore) [BURMA–EO14014] (Linked To: LATT, Tun Min; Linked To: SOE, Win Min).

Designated pursuant to section 1(a)(vii) of E.O. 14014 for being owned or controlled by, or for having acted or purported to act for or on behalf of, directly or indirectly, TUN MIN LATT, a person whose property and interests in property are blocked pursuant to E.O. 14014.

Designated pursuant to section 1(a)(vii) of E.O. 14014 for being owned or controlled by, or for having acted or purported to act for or on behalf of, directly or indirectly, WIN MIN SOE, a person whose property and interests in property are blocked pursuant to E.O. 14014.

6. STAR SAPPHIRE TRADING COMPANY LIMITED (a.k.a. STAR SAPPHIRE TRADING CO., LTD.), No. 5556/5558, Sagaing Street, Oattarathiri Township, Naypyitaw, Burma; Organization Established Date 20 Oct 2010; Organization Type: Non-specialized wholesale trade; Business Registration Number 114620785 (Burma) [BURMA–EO14014] (Linked To: LATT, Tun Min).

Designated pursuant to section 1(a)(vii) of E.O. 14014 for being owned or controlled by, or for having acted or purported to act for or on behalf of, directly or indirectly, TUN MIN LATT, a person whose property and interests in property are blocked pursuant to E.O. 14014.

Authority: E.O. 14014, 86 FR 9429.

Dated: March 24, 2023.

Andrea M. Gacki,

Director, Office of Foreign Assets Control, U.S. Department of the Treasury.

[FR Doc. 2023–06495 Filed 3–28–23; 8:45 am]

BILLING CODE 4810–AL–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

Art Advisory Panel—Notice of Closed Meeting

AGENCY: Internal Revenue Service, Treasury.

ACTION: Notice of closed meeting of Art Advisory Panel.

SUMMARY: Closed meeting of the Art Advisory Panel will be held in New York, NY. The entire meeting will be closed.

DATES: The meeting will begin at 9:30 a.m. Eastern Time. The meeting will be held April 19, 2023.

ADDRESSES: The closed meeting of the Art Advisory Panel will be held at 290 Broadway—Foley Square, New York, NY 10007.

FOR FURTHER INFORMATION CONTACT: Robin B. Lawhorn, 400 West Bay Street, Suite 252, Jacksonville, FL 32202. Telephone (904) 661–3198 (not a toll-free number).

SUPPLEMENTARY INFORMATION: Notice is hereby given pursuant to section 10(a)(2) of the Federal Advisory Committee Act, 5 U.S.C. 1009, that a closed meeting of the Art Advisory Panel will be held at 290 Broadway—Foley Square, New York, NY 10007.

The agenda will consist of the review and evaluation of the acceptability of fair market value appraisals of works of art involved in Federal income, estate, or gift tax returns. This will involve the discussion of material in individual tax returns made confidential by the provisions of 26 U.S.C. 6103.

A determination as required by section 10(d) of the Federal Advisory Committee Act has been made that this meeting is concerned with matters listed in sections 552b(c)(3), (4), (6), and (7) of the Government in the Sunshine Act, and that the meeting will not be open to the public.

Andrew J. Keyso Jr.,

Chief, Independent Office of Appeals.

[FR Doc. 2023–06412 Filed 3–28–23; 8:45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF THE TREASURY

2023 Terrorism Risk Insurance Program Data Call

AGENCY: Departmental Offices, U.S. Department of the Treasury.

ACTION: Data collection.

SUMMARY: Pursuant to the Terrorism Risk Insurance Act of 2002, as amended (TRIA), insurers that participate in the Terrorism Risk Insurance Program (TRIP or Program) are directed to submit information for the 2023 TRIP Data Call, which covers the reporting period from January 1, 2022 to December 31, 2022. Participating insurers are required to register and report information in a series of forms approved by the Office of Management and Budget (OMB). All insurers writing commercial property and casualty insurance in lines subject to TRIP, subject to certain exceptions identified in this notice, must respond to this data call no later than May 15, 2023.

DATES: Participating insurers must register and submit data no later than May 15, 2023.

ADDRESSES: Participating insurers will register through a website that has been established for this data call. After registration, insurers will receive data collection forms through a secure file transfer portal, and they will submit the requested data through the same secure portal. Participating insurers can register for the 2023 TRIP Data Call at *https://tripsection111data.com.* Additional information about the data call, including sample data collection forms and instructions, can be found on the TRIP website at *https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/federal-insurance-office/terrorism-risk-insurance-program/annual-data-collection.*

FOR FURTHER INFORMATION CONTACT: Richard Ifft, Senior Insurance Regulatory Policy Analyst, Federal Insurance Office, Room 1410, Department of the Treasury, 1500 Pennsylvania Avenue NW, Washington, DC 20220, (202) 622–2922; or Sherry Rowlett, Program Analyst, Federal Insurance Office, Room 1410, Department of the Treasury, 1500 Pennsylvania Avenue NW, Washington, DC 20220, (202) 622–1890. Persons who have difficulty hearing or speaking may access these numbers via TTY by calling the toll-free Federal Relay Service at (800) 877–8339.

SUPPLEMENTARY INFORMATION:

I. Background

TRIA [1] created the Program within the U.S. Department of the Treasury (Treasury) to address disruptions in the market for terrorism risk insurance, to help ensure the continued availability and affordability of commercial property and casualty insurance for terrorism risk, and to allow for the private market to stabilize and build insurance capacity to absorb any future losses for terrorism events. The Program has been reauthorized on a number of occasions, and was most recently extended until December 31, 2027.[2] TRIA requires the Secretary of the Treasury (Secretary) to collect certain insurance data and information from insurers on an annual basis regarding their participation in the Program.[3] TRIA also requires the Secretary to prepare a biennial study on the competitiveness of small insurers in the terrorism risk insurance marketplace (Small Insurer Study).[4] The next Small Insurer Study must be submitted to Congress by June 30, 2023. The Federal Insurance Office (FIO) is authorized to assist the Secretary in the administration of the Program,[5] including conducting the annual data call and preparing reports and studies required under TRIA.

FIO will be using the same data collection forms that were used during the 2022 TRIP Data Call, subject to a non-substantive change to the collection of certain cyber insurance data that has been approved by the Office of Management and Budget (OMB),[6] as well certain additional non-substantive changes (such as date changes and instruction clarifications).[7]

II. Elements of 2023 TRIP Data Call

For purposes of the 2023 TRIP Data Call, FIO, state insurance regulators, and the National Association of Insurance Commissioners (NAIC) will again use the consolidated data call mechanism first developed for use in the 2018 TRIP Data Call. This approach relies on four joint reporting templates, to be completed by Small Insurers, Non-Small Insurers, Captive Insurers, and Alien Surplus Lines Insurers, each as defined below. The use of joint reporting templates is designed to satisfy the objectives of both Treasury and state insurance regulators, while also reducing burden on participating insurers. State insurance regulators or the NAIC will provide separate notification regarding the reporting of information into the state reporting portal, including any reporting requirements to state insurance regulators that are distinct from the Treasury requirements. Insurers subject to the consolidated data call that are part of a group will report on a group basis, while those that are not part of a group will report on an individual company basis.

A. Reporting of Workers' Compensation Information

The TRIP Data Calls request certain information relating to workers' compensation insurance. For the 2023 TRIP Data Call, Treasury will again work with the National Council on Compensation Insurance (NCCI), the California Workers' Compensation Insurance Rating Bureau (California WCIRB), and the New York Compensation Insurance Rating Board (NYCIRB) to provide workers' compensation data relating to premium and payroll information on behalf of participating insurers, either directly or through other workers' compensation rating bureaus. The data aggregator used by Treasury will provide such insurers with reporting templates that do not require them to report this workers' compensation data. Reporting insurers that write only workers' compensation policies are still required to register for the 2023 TRIP Data Call and provide general company information and data

[1] Public Law 107–297, 116 Stat. 2322, codified at 15 U.S.C. 6701, note. Because the provisions of TRIA (as amended) appear in a note, instead of particular sections, of the United States Code, the provisions of TRIA are identified by the sections of the law.

[2] Terrorism Risk Insurance Program Reauthorization Act of 2019, Public Law 116–94, 133 Stat. 2534.

[3] TRIA, section 104(h)(1). Treasury regulations also address the annual data collection requirement. *See* 31 CFR 50.51, 50.54.

[4] TRIA, section 108(h).

[5] 31 U.S.C. 313(c)(1)(D).

[6] The non-substantive change to the collection methodology now permits the reporting of the number of cyber insurance policies and associated premium issued to small, medium, and large policyholders as measured by either the revenue of the policyholder, or the number of employees of the policyholder. One method or the other must be selected; a reporting insurer may not use multiple methodologies for policies within its portfolio. In the 2022 Data Call, the number of employees was the only basis identified for making the allocation for reporting purposes. See Office of Information and Regulatory Affairs, Office of Management & Budget, OMB Control No. 1505–0257, *https://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=202303-1505-001.*

[7] These non-substantive changes include a new modeled loss scenario identified in the Reinsurance Worksheet that will be used in connection with the modeled loss questions (which have not changed from those posed in prior data collections). The modeled loss questions must be completed by Non-Small Insurers, Alien Surplus Lines Insurers, and Captive Insurers. As in prior years, Small Insurers complete a separate Reinsurance Worksheet that does not contain modeled loss questions.

related to private reinsurance. The data received from NCCI, the California WCIRB, and the NYCIRB will be merged with the information provided by the insurers.

B. Reporting Templates

Each category of insurer is required to complete the same worksheets that they completed in the 2023 TRIP Data Call, subject to the changes identified above. The same reporting exceptions apply this year as applied in the 2022 TRIP Data Call, as specified further below in the discussions for each category of insurer.

Various worksheets used in the 2023 TRIP Data Call seek certain information relating to workers' compensation insurance. NCCI, the California WCIRB, and the NYCIRB will complete the workers' compensation elements of these worksheets on behalf of reporting insurers. Further information concerning the reporting templates for each category of insurer, and the individual worksheets contained within each, can be found in the instructions for the reporting templates for each category of insurer. The individual reporting templates and worksheets will also be addressed in the training webinars discussed below.

For the 2023 TRIP Data Call, an insurer will qualify as a Small Insurer if it had both 2021 policyholder surplus of less than $1 billion and 2021 direct earned premiums in TRIP-eligible lines of insurance of less than $1 billion.[8] Of this group, Small Insurers with TRIP-eligible direct earned premiums of less than $10 million in 2022 will be exempt from the 2023 TRIP Data Call.[9] Neither Captive Insurers nor Alien Surplus Lines Insurers are eligible for this reporting exemption. Insurers defined as Small Insurers for the 2023 TRIP Data Call will report the same information to Treasury and to state insurance regulators (in each case on a group basis), except as state insurance regulators may separately direct for purposes of the state data call.

The Non-Small Insurer template will be completed by insurance groups (or individual insurers not affiliated with a group) that are not subject to reporting on the Captive Insurer or Alien Surplus Lines Insurer reporting templates and had either a 2021 policyholder surplus equal to or greater than $1 billion or 2021 direct earned premiums in TRIP-eligible lines of insurance equal to or greater than $1 billion. Insurers defined as Non-Small Insurers for the 2023 TRIP Data Call will report the same information to Treasury and to state insurance regulators (in each case on a group basis), except as state insurance regulators may separately direct for purposes of the state data call.

Captive Insurers are defined in 31 CFR 50.4(g) as insurers licensed under the captive insurance laws or regulations of any state. Captive Insurers that wrote policies in TRIP-eligible lines of insurance during the reporting period (January 1, 2022 to December 31, 2022) are required to register and submit data to Treasury, unless they did not provide their insureds with any terrorism risk insurance subject to the Program.

Alien Surplus Lines Insurers are defined in 31 CFR 50.4(o)(1)(i)(B) as insurers not licensed or admitted to engage in the business of providing primary or excess insurance in any state, but that are eligible surplus line insurers listed on the NAIC Quarterly Listing of Alien Insurers. Alien Surplus Lines Insurers that are part of a larger group classified as a Non-Small Insurer or a Small Insurer should report to Treasury as part of the group, using the appropriate template. Therefore, the Alien Surplus Lines Insurer template should be used only by an Alien Surplus Lines Insurer that is not part of a larger group subject to the 2023 TRIP Data Call.

C. Supplemental Reference Documents

Treasury will continue to make available on the TRIP data collection website[10] documents providing a complete ZIP code listing for areas subject to reporting on the Geographic Exposures (Nationwide) Worksheet, as well as several hypothetical policy reporting scenarios.

D. Training Webinars

As in prior years, Treasury will hold four separate training sessions corresponding to the four reporting templates that will be used by insurers (Small Insurers, Non-Small Insurers, Captive Insurers, and Alien Surplus Lines Insurers). The webinars will be held on April 19 and April 20, 2023 to assist reporting insurers in responding to the 2023 TRIP Data Call, with each webinar focusing on a specific reporting template. Specific times and details concerning participation in the webinars will be made available on the TRIP data collection website, and recordings of each webinar will be made available on the website following each training session.

III. 2023 TRIP Data Call

Treasury, through an insurance statistical aggregator, will accept group or insurer registration forms through *https://tripsection111data.com.* Registration is mandatory for all insurers participating in the 2023 TRIP Data Call. Upon registration, the aggregator will transmit individualized data collection forms (in Excel format) to the reporting group or insurer via a secure file transfer portal. The reporting group or insurer may transmit a complete data submission via the same portal using either the provided Excel forms or a .csv file.[11]

Copies of the instructions and data collection forms are available on Treasury's website in read-only format. Reporting insurers will obtain the fillable reporting forms directly from the data aggregator only after registering for the data collection process.

Reporting insurers are required to register and submit complete data to Treasury no later than May 15, 2023. Because of the statutory reporting deadline for Treasury's 2023 Small Insurer Study to Congress, no extensions will be granted. Reporting insurers can ask the data aggregator questions about registration, form completion, and submission at *tripsection111data@iso.com.* Reporting insurers may also submit questions to the Treasury contacts listed above. Questions regarding submission of data to state insurance regulators should be directed to the appropriate state insurance regulator or the NAIC.

All data submitted to the aggregator is subject to the confidentiality and data protection provisions of TRIA and the Program Rules, as well as to section 552 of title 5, United States Code, including any exceptions thereunder. In accordance with the Paperwork Reduction Act (44 U.S.C. 3501–3521), the information collected through the web portal has been approved by OMB

[8] Small Insurers are defined in 31 CFR 50.4(z) as insurers (or an affiliated group of insurers) whose policyholder surplus for the immediately preceding year is less than five times the Program Trigger for the current year, and whose direct earned premiums in TRIP-eligible lines for the preceding year are also less than five times the Program Trigger for the current year. Accordingly, for the 2023 TRIP Data Call (covering the 2022 calendar year), an insurer qualifies as a Small Insurer if its 2021 policyholder surplus and 2021 direct earned premiums are less than five times the 2022 Program Trigger of $200 million.

[9] Individual insurers with less than $10 million in direct earned premiums in TRIP-eligible lines that are part of a larger group must still report as part of the group as a whole if the group's direct earned premiums in these lines are over $10 million.

[10] See *https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/federal-insurance-office/terrorism-risk-insurance-program/annual-data-collection.*

[11] Specifications for submission of data using a .csv file will be provided to the insurer by the aggregator.

under Control Number 1505–0257. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number.

Steven E. Seitz,

Director, Federal Insurance Office.

[FR Doc. 2023–06422 Filed 3–28–23; 8:45 am]

BILLING CODE 4810–AK–P

DEPARTMENT OF THE TREASURY

Agency Information Collection Activities; Submission for OMB Review; Comment Request; Departmental Offices Information Collection Request

AGENCY: Departmental Offices, U.S. Department of the Treasury.

ACTION: Notice.

SUMMARY: The U.S. Department of the Treasury, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other federal agencies to take this opportunity to comment on this continuing information collection, as required by the Paperwork Reduction Act of 1995. The public is invited to submit comments on the collection(s) listed below.

DATES: Comments should be received on or before April 28, 2023 to be assured of consideration.

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.

FOR FURTHER INFORMATION CONTACT: Copies of the submissions may be obtained from Melody Braswell by emailing *PRA@treasury.gov,* calling (202) 622–1035, or viewing the entire information collection request at *www.reginfo.gov.*

SUPPLEMENTARY INFORMATION:

Departmental Offices (DO)

Title: Local Assistance and Tribal Consistency Fund (LATCF).

OMB Control Number: 1505–0276.

Type of Review: Revision of a currently approved collection.

Abstract: Section 605 of the Social Security Act, as added by section 9901 of the American Rescue Plan Act of 2021, established the Local Assistance and Tribal Consistency Fund (the ''LATCF''), which appropriates $2 billion in total funding across fiscal years 2022 and 2023 to Treasury to make payments to eligible revenue sharing counties and eligible Tribal governments (collectively, ''eligible governments''). Specifically, for each of fiscal years 2022 and 2023, Treasury shall reserve $250 million of the total amount appropriated to allocate and pay to eligible Tribal governments and $750 million of the total amount appropriated to allocate and pay to eligible revenue sharing counties. Under this program, recipients have broad discretion on uses of funds, similar to the ways in which they may use funds generated from their own revenue sources.

Form: Records Retention and Access Requirement, Payment Information Forms and associated information; Obligation and Expenditure Reports.

Affected Public: Tribal and County governments.

Estimated Number of Respondents: 8,651.

Estimated Number of Responses per Respondent: 1.

Estimated Average Time per Response: 1 hour.

Estimated Frequency of Response: Once, On Occasion, Annually.

Estimated Total Annual Burden Hours: 9,304 hours.

Authority: 44 U.S.C. 3501 *et seq.*

Melody Braswell,

Treasury PRA Clearance Officer.

[FR Doc. 2023–06419 Filed 3–28–23; 8:45 am]

BILLING CODE 4810–25–P

U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION

Notice of Open Public Hearing

AGENCY: U.S.-China Economic and Security Review Commission.

ACTION: Notice of open public hearing.

SUMMARY: Notice is hereby given of the following hearing of the U.S.-China Economic and Security Review Commission. The Commission is mandated by Congress to investigate, assess, and report to Congress annually on ''the national security implications of the economic relationship between the United States and the People's Republic of China.'' Pursuant to this mandate, the Commission will hold a public hearing in Washington, DC on April 13, 2023 on ''China's Pursuit of Defense Technologies: Implications for U.S. and Multilateral Export Control and Investment Screening Regimes.''

DATES: The hearing is scheduled for Thursday, April 13, 2023 at 9:30 a.m.

ADDRESSES: Members of the public will be able to attend in person at Dirksen Senate Office Building, Room 419 or view a live webcast via the Commission's website at *www.uscc.gov. Visit the Commission's website for any further instructions or changes to the status of public access to Capitol grounds. Reservations are not required to view the hearing online or in person.*

FOR FURTHER INFORMATION CONTACT: Any member of the public seeking further information concerning the hearing should contact Jameson Cunningham, 444 North Capitol Street NW, Suite 602, Washington, DC 20001; telephone: 202–624–1496, or via email at *jcunningham@uscc.gov. Reservations are not required to attend the hearing.*

ADA Accessibility: For questions about the accessibility of the event or to request an accommodation, please contact Jameson Cunningham via email at *jcunningham@uscc.gov.* Requests for an accommodation should be made as soon as possible, and at least five business days prior to the event.

SUPPLEMENTARY INFORMATION:

Background: This is the fourth public hearing the Commission will hold during its 2023 report cycle. The hearing will start with China's motivations and policies for defense modernization, including overviews of its military procurement process and military-civil fusion strategy. Next, the hearing will evaluate how China is pursuing new materials, components, and technologies to address longstanding obstacles in domains such as space, aviation, and undersea warfare, as well as to gain supremacy in new domains such as artificial intelligence. Finally, the hearing will provide a forward-looking assessment of how Congress, the Administration, and U.S. allies and partners could improve export controls and investment screening to control technology flows to China for use in advanced weapons.

The hearing will be co-chaired by Chairman Carolyn Bartholomew and Vice Chairman Alex Wong. Any interested party may file a written statement by April 13, 2023 by transmitting to the contact above. A portion of the hearing will include a question and answer period between the Commissioners and the witnesses.

Authority: Congress created the U.S.-China Economic and Security Review Commission in 2000 in the National Defense Authorization Act (Pub. L. 106–398), as amended by Division P of the Consolidated Appropriations Resolution, 2003 (Pub. L. 108–7), as amended by Public Law 109–108 (November 22, 2005), as amended by Public Law 113–291 (December 19, 2014).

Dated: March 24, 2023.

Daniel W. Peck,

Executive Director, U.S.-China Economic and Security Review Commission.

[FR Doc. 2023–06506 Filed 3–28–23; 8:45 am]

BILLING CODE 1137–00–P

FEDERAL REGISTER

Vol. 88 Wednesday,
No. 60 March 29, 2023

Part II

Environmental Protection Agency

40 CFR Parts 141 and 142
PFAS National Primary Drinking Water Regulation Rulemaking; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 141 and 142

[EPA–HQ–OW–2022–0114; FRL 8543–01–OW]

RIN 2040–AG18

PFAS National Primary Drinking Water Regulation Rulemaking

AGENCY: Environmental Protection Agency (EPA).

ACTION: Preliminary regulatory determination and proposed rule; request for public comment; notice of public hearing.

SUMMARY: The Environmental Protection Agency (EPA) is committed to using and advancing the best available science to tackle per- and polyfluoroalkyl substances (PFAS) pollution, protect public health, and harmonize policies that strengthen public health protections with infrastructure funding to help communities, especially disadvantaged communities, deliver safe drinking water. In March 2021, EPA issued a final regulatory determination to regulate perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) as contaminants under Safe Drinking Water Act (SDWA). In this notice, EPA is issuing a preliminary regulatory determination to regulate perfluorohexane sulfonic acid (PFHxS), hexafluoropropylene oxide dimer acid (HFPO–DA) and its ammonium salt (also known as a GenX chemicals), perfluorononanoic acid (PFNA), and perfluorobutane sulfonic acid (PFBS), and mixtures of these PFAS as contaminants under SDWA. Through this action, EPA is also proposing a National Primary Drinking Water Regulation (NPDWR) and health-based Maximum Contaminant Level Goals (MCLG) for these four PFAS and their mixtures as well as for PFOA and PFOS. EPA is proposing to set the health-based value, the MCLG, for PFOA and PFOS at zero. Considering feasibility, including currently available analytical methods to measure and treat these chemicals in drinking water, EPA is proposing individual MCLs of 4.0 nanograms per liter (ng/L) or parts per trillion (ppt) for PFOA and PFOS. EPA is proposing to use a Hazard Index (HI) approach to protecting public health from mixtures of PFHxS, HFPO–DA and its ammonium salt, PFNA, and PFBS because of their known and additive toxic effects and occurrence and likely co-occurrence in drinking water. EPA is proposing an HI of 1.0 as the MCLGs for these four PFAS and any mixture containing one or more of them because it represents a level at which no known or anticipated adverse effects on the health of persons is expected to occur and which allows for an adequate margin of safety. EPA has determined it is also feasible to set the MCLs for these four PFAS and for a mixture containing one or more of PFHxS, HFPO–DA and its ammonium salt, PFNA, PFBS as an HI of unitless 1.0. The Agency is requesting comment on this action, including this proposed NPDWR and MCLGs, and have identified specific areas where public input will be helpful for EPA in developing the final rule. In addition to seeking written input, the EPA will be holding a public hearing on May 4, 2023.

DATES: Comments must be received on or before May 30, 2023. Comments on the information collection provisions submitted to the Office of Management and Budget (OMB) under the Paperwork Reduction Act (PRA) are best assured of consideration by OMB if OMB receives a copy of your comments on or before April 28, 2023. Public hearing: EPA will hold a virtual public hearing on May 4, 2023, at *https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas.* Please refer to the **SUPPLEMENTARY INFORMATION** section for additional information on the public hearing.

ADDRESSES: You may send comments, identified by Docket ID No. EPA–HQ–OW–2022–0114 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, Office of Ground Water and Drinking Water Docket, Mail Code 2822IT, 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: Alexis Lan, Office of Ground Water and Drinking Water, Standards and Risk Management Division (Mail Code 4607M), Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington, DC 20460; telephone number 202–564–0841; email address: *PFASNPDWR@epa.gov*

SUPPLEMENTARY INFORMATION:

Executive Summary

In March 2021, EPA issued a final regulatory determination to regulate perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) as contaminants under Safe Drinking Water Act (SDWA). EPA is issuing a preliminary regulatory determination to regulate perfluorohexane sulfonic acid (PFHxS), hexafluoropropylene oxide dimer acid (HFPO–DA) and its ammonium salt (also known as a GenX chemicals), perfluorononanoic acid (PFNA), and perfluorobutane sulfonic acid (PFBS), and mixtures of these PFAS as contaminants under SDWA (see section III of this preamble for additional discussion on EPA's preliminary regulatory determination). Through this action, EPA is also proposing a National Primary Drinking Water Regulation (NPDWR) and health-based Maximum Contaminant Level Goals (MCLG) for these four PFAS and their mixtures as well as for PFOA and PFOS. Exposure to these PFAS may cause adverse health effects, and all are likely to occur in drinking water.

PFAS are a large family of synthetic chemicals that have been in use since the 1940s. Many of these compounds have unique physical and chemical properties that make them highly stable and resistant to degradation in the environment—colloquially termed ''forever chemicals.'' People can be exposed to PFAS through certain consumer products, occupational contact, and/or by consuming food and drinking water that contain PFAS (see section II.C of this preamble for additional discussion on PFAS chemistry, production, and uses). Current scientific evidence indicates that consuming water containing the PFAS covered in this proposed regulation above certain levels can result in harmful health effects. Depending on the individual PFAS, health effects can include negative impacts on fetal growth after exposure during pregnancy, on other aspects of development, reproduction, liver, thyroid, immune function, and/or the nervous system; and increased risk of cardiovascular and/or certain types of cancers, and other health impacts (see

section II.B and III.B of this preamble for additional discussion on health effects).

This proposed PFAS drinking water regulation contains several key features. Based on a review of the best available health effects data, EPA is proposing MCLGs that address six PFAS. An MCLG is the maximum level of a contaminant in drinking water at which no known or anticipated adverse effect on the health of persons would occur, allowing an adequate margin of safety. A contaminant means any ''physical, chemical or biological or radiological substance or matter in water.'' This proposal addresses contaminants and certain mixtures of contaminants. Through this action, EPA is also proposing enforceable standards which takes the form of maximum contaminant levels (MCLs) in this proposed regulation. An MCL is the maximum level allowed of a contaminant or a group of contaminants (*i.e.,* mixture of contaminants) in water which is delivered to any user of a public water system (PWS). The SDWA generally requires EPA to set an MCL ''as close as feasible to'' the MCLG. EPA has also included monitoring, reporting, and other requirements to ensure regulated drinking water systems, known as a PWS, meet the PFAS limits in the regulation.

Following a systematic review of available human epidemiological and animal toxicity studies, EPA has determined that PFOA and PFOS are likely to cause cancer (*e.g.,* kidney and liver cancer) and that there is no dose below which either chemical is considered safe (see section IV.A and V.A through B of this preamble for additional discussion). Therefore, EPA is proposing to set the health-based value, the MCLG, for both of these contaminants at zero. Considering feasibility, including currently available analytical methods to measure and treat these chemicals in drinking water, EPA is proposing individual MCLs of 4.0 nanograms per liter (ng/L) or parts per trillion (ppt) for PFOA and PFOS (see sections VI.C and VIII of this preamble for additional discussion on the MCLs and practical quantitation limits [PQLs]).

Due to their widespread use and persistence, many PFAS are known to co-occur in drinking water and the environment—meaning that these compounds are often found together and in different combinations as mixtures (see section III.C and VII of this preamble for additional discussion on occurrence). PFAS disrupt signaling of multiple biological pathways resulting in common adverse effects on several biological systems and functions, including thyroid hormone levels, lipid synthesis and metabolism, development, and immune and liver function. Additionally, EPA's examination of health effects information found that exposure through drinking water to a mixture of PFAS can be assumed to act in a dose-additive manner (see sections III.B and IV.B of this preamble for additional discussion on mixture toxicity). This dose additivity means that low levels of multiple PFAS, that individually would not likely result in adverse health effects, when combined in a mixture are expected to result in adverse health effects. As a result, EPA is proposing to use a Hazard Index (HI) approach to protecting public health from mixtures of four PFAS: PFHxS, HFPO–DA and its ammonium salt (also known as GenX chemicals), PFNA, and PFBS because of their known and additive toxic effects and occurrence and likely co-occurrence in drinking water. PFOA and PFOS are being proposed for separate MCLs and not included in the HI because their individual proposed MCLGs are zero, and the level at which no known or anticipated adverse effects on the health of persons is expected to occur is well below current analytical quantitation levels. Based on our current understanding of health effects, this is not the case for the other covered PFAS. Because of the analytical limitations for PFOA and PFOS, the MCL for these two PFAS is set at the lowest feasible quantitation level and any exceedance of this limit requires action to protect public health, regardless of any mixture in which they are found. As a result, EPA is not proposing to include PFOA or PFOS in the HI.

The HI is a commonly used risk management approach for mixtures of chemicals (USEPA, 1986a; 2000a). In this approach, a ratio called a hazard quotient (HQ) is calculated for each of the four PFAS (PFHxS, HFPO–DA and its ammonium salt (also known as GenX chemicals), PFNA, and PFBS) by dividing an exposure metric, in this case, the measured level of each of the four PFAS in drinking water, by a health reference value for that particular PFAS. For health reference values, in this proposal, EPA is using Health Based Water Concentration (HBWCs) as follows: 9.0 ppt for PFHxS, 10.0 ppt for HFPO–DA; 10.0 ppt for PFNA; and 2000 ppt for PFBS (USEPA, 2023a). The individual PFAS ratios (HQs) are then summed across the mixture to yield the HI. If the resulting HI is greater than one (1.0), then the exposure metric is greater than the health metric and potential risk is indicated. EPA's Science Advisory Board (SAB) opined that where the health endpoints of the chosen compounds are similar, it is reasonable to use an HI as ''a reasonable approach for estimating the potential aggregate health hazards associated with the occurrence of chemical mixtures in environmental media.'' (USEPA, 2022a). The HI provides an indication of overall potential risk of a mixture as well as individual PFAS that are potential drivers of risk (those PFAS(s) with high(er) ratios of exposure to health metrics) (USEPA, 2000a; see section IV.B and V.C of this preamble for additional discussion on the HI and its derivation). Therefore, EPA is proposing an HI of 1.0 as the MCLGs for these four PFAS and any mixture containing one or more of them because it represents a level at which no known or anticipated adverse effects on the health of persons is expected to occur and which allows for an adequate margin of safety. EPA has determined it is also feasible to set the MCLs for these four PFAS and for a mixture containing one or more of PFHxS, HFPO–DA and its ammonium salt, PFNA, PFBS as an HI of unitless 1.0 (see sections V.C and VI.B of this preamble for discussion of the HI MCLG and MCL, respectively).

Monitoring is a core component of a NPDWR and assures that water systems are providing necessary public health protections (see section IX of this preamble for additional discussion on monitoring and compliance requirements). EPA is therefore proposing requirements for systems to monitor for PFOA, PFOS, PFHxS, HFPO–DA and its ammonium salt, PFNA, and PFBS in drinking water that build upon EPA's Standardized Monitoring Framework (SMF) for Synthetic Organic Compounds (SOCs) where the monitoring frequency for any PWS depends on previous monitoring results. This proposal includes flexibilities related to monitoring, including flexibilities for systems to use certain, previously collected data to satisfy initial monitoring requirements in this proposal as well as reduced monitoring requirements in certain circumstances (see section IX.E of this preamble for additional discussion on monitoring waivers).

In summary, the proposed MCLs for PFOA and PFOS are 4 ng/L (individually), and the proposed MCL of an HI of 1.0 for any mixture containing PFHxS, HFPO–DA and its ammonium salt, PFNA, and/or PFBS. Water systems with PFAS levels that exceed the proposed MCLs would need to take action to provide safe and reliable drinking water. These systems may install water treatment or consider other

options such as using a new uncontaminated source water or connecting to an uncontaminated water system. Activated carbon, anion exchange (AIX) and high-pressure membrane technologies have all been demonstrated to remove PFAS, including PFOA, PFOS, PFHxS, HFPO–DA and its ammonium salt, PFNA, and PFBS, from drinking water systems. These treatment technologies can be installed at a water system's treatment plant and are also available through in-home filter options (see section XI of this preamble for additional discussion on available treatment technologies).

As part of its health risk reduction and cost analysis, SDWA requires an evaluation of quantifiable and nonquantifiable health risk reduction benefits and costs. SDWA also requires that EPA considers quantifiable and nonquantifiable health risk reduction benefits from reductions in co-occurring contaminants. The SDWA also requires that EPA determine if the benefits of the proposed rule justify the costs. In accordance with these requirements, the EPA Administrator has determined that the quantified and nonquantifiable benefits of the proposed PFAS NPDWR justify the costs (see section XIII of this preamble for additional discussion on EPA's Health Risk Reduction and Cost Analysis [HRRCA]). Among other things, EPA evaluated which entities which would be affected by the rule, quantified costs using available data and statical models, and described unquantifiable costs. EPA also quantified benefits by estimating reduced cardiovascular events (*e.g.,* heart attacks and strokes), developmental impacts to fetuses and infants, and reduced cases of kidney cancer. EPA has also quantified benefits by estimating reduced bladder cancer cases caused by reduced disinfection byproduct (DBP) formation in some systems that install treatment to meet the requirements of this rule. EPA has also developed a qualitative summary of benefits expected to result from the removal of regulated PFAS and additional co-removed PFAS contaminants.

To help communities on the frontlines of PFAS contamination, the passage of the Infrastructure Investment and Jobs Act, also referred to as the Bipartisan Infrastructure Law (BIL), invests over $11.7 billion in the Drinking Water State Revolving Fund (SRF); $4 billion to the Drinking Water SRF for Emerging Contaminants; and $5 billion to Small, Underserved, and Disadvantaged Communities Grants. These funds will assist many disadvantaged communities, small systems, and others with the costs of installation of treatment when it might otherwise be cost-challenging.

Public participation and consultations with key stakeholders are critical in developing an implementable and public health protective rule. EPA has engaged with many stakeholders and consulted with entities such as the SAB, and the National Drinking Water Advisory Council (NDWAC) in developing this proposed rule (see section XV of this preamble on EPA's Statutory and Executive Order reviews). The Agency is requesting comment on this action, including this proposed NPDWR and MCLGs, and have identified specific areas where public input will be helpful for EPA in developing the final rule (see section XIV of this preamble on specific topics highlighted for public comment). In addition to seeking written input, EPA will be holding a public hearing on May 4th, 2023.

I. Public Participation

A. Written Comments

Submit your comments, identified by Docket ID No. EPA–HQ–OW–2022–0114, 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. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. 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 Virtual Public Hearing

EPA will hold a public hearing on May 4th, 2023, to receive public comment and will present the proposed requirements of the draft NPDWR. The hearing will be held virtually from approximately 11 a.m. until 7 p.m. eastern time. EPA will begin registering speakers for the hearing upon publication of this document in the **Federal Register** (FR). To attend and register to speak at the virtual hearing, please use the online registration form available at *https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas.* The last day to pre-register to speak at the hearing will be April 28, 2023. On May 3, 2023, EPA will post a general agenda for the hearing that will list pre-registered speakers in approximate order at: *https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas.* The number of online connections available for the hearing is limited and will be offered on a first- come, first-served basis. To submit visual aids to support your oral comment, please contact *PFASNPDWR@epa.gov* for guidelines and instructions. Registration will remain open for the duration of the hearing itself for those wishing to provide oral comment during unscheduled testimony; however, early registration is strongly encouraged to ensure proper accommodations and adequate timing.

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. Please note that the public hearing may close early if all business is finished.

EPA encourages commenters to provide EPA with a written copy of their oral testimony electronically by submitting it to the public docket at *www.regulations.gov,* Docket ID: EPA–HQ–OW–2022–0114. Oral comments will be time limited to allow for maximum participation, which may result in the full statement not being heard. Therefore, EPA also recommends submitting the text of your oral comments as written comments to the rulemaking docket. Any person not making an oral statement may also submit a written statement. 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/sdwa/and-polyfluoroalkyl-substances-pfas.* While EPA expects the hearing to go forward as set forth above, please monitor our website or contact *PFASNPDWR@epa.gov* to determine if there are any updates. EPA does not

intend to publish a document in the **Federal Register** announcing updates.

If you require any accommodations such as language translation, captioning, or other special accommodations for the day of the hearing, please indicate this as a part of your registration and describe your needs by April 28, 2023. EPA may not be able to arrange accommodations without advance notice. Please contact *PFASNPDWR@epa.gov* with any questions related to the public hearing.

This proposed rule is organized as follows:

I. General Information

A. What is EPA proposing?

EPA is proposing for public comment a drinking water regulation that includes six PFAS. EPA is proposing to establish MCLGs and an NPDWR for these PFAS in public drinking water supplies. EPA proposes MCLGs for PFOA and PFOS at zero (0) and an enforceable MCL for PFOA and PFOS in drinking water at 4.0 ppt. Additionally, the Agency is requesting comment on a preliminary determination to regulate additional PFAS to include PFHxS, HFPO–DA [1] (also known as and referred to as ''GenX Chemicals'' in this proposal), PFNA, and PFBS. Concurrent with this preliminary determination, EPA is proposing an HI of 1.0 as the MCLG and enforceable MCL to address individual and mixtures of these four contaminants where they occur in drinking water. EPA is proposing to calculate the HI as the sum total of component PFAS HQs, calculated by dividing the measured component PFAS concentration in water by the relevant HBWC. In this proposal, EPA is using HBWCs of 9.0 ppt for PFHxS, 10.0 ppt

[1] PFAS may exist in multiple forms, such as acids and organic or metal salts. Each of these forms may be listed as a separate entry in certain databases and have separate Chemical Abstract Service (CAS) Registry numbers. However, PFAS are expected to dissociate in water to their anionic form. For example, the term ''GenX Chemicals'' acknowledges the ''acid'' and ''ammonium salt'' forms of HFPO–DA as two different chemicals. In water, though, these chemicals dissociate and therefore the resulting anion appears as a single analyte for the purposes of detection and quantitation. Please see ''definitions'' for more information. EPA notes that the chemical HFPO–DA is used in a processing aid technology developed by DuPont to make fluoropolymers without using PFOA. The chemicals associated with this process are commonly known as GenX Chemicals and the term is often used interchangeably for HFPO–DA along with its ammonium salt (USEPA, 2021b).

for HFPO–DA; 10.0 ppt for PFNA; and 2000 ppt for PFBS. The proposed approach to calculating the HI for this set of four PFAS compounds is designed to be protective against all adverse effects, not a single outcome/effect, and is a health protective decision aid for use in determining the level at which there are no adverse effects on the health of persons with an adequate margin of safety, thus is appropriate for MCLG development.

The requirements in this proposal that apply to (1) PFOA, (2) PFOS, and (3) PFHxS, HFPO–DA, PFNA, and PFBS and their mixtures are distinct and capable of operating independently.

B. Does this action apply to me?

The preliminary regulatory determination to establish drinking water regulations for certain PFAS and their mixtures and the proposed regulation are proposals for public comment and are not requirements or regulations. Instead, this action notifies interested parties of the availability of information supporting the preliminary regulatory determinations for four PFAS and their mixtures, the development of the NPDWR for six PFAS, and proposed rule requirements for public comment. If EPA proceeds to a final regulatory determination and final regulation, once promulgated, this action will potentially affect the following:

Category	Examples of potentially affected entities
Public water systems [2]	Community water systems (CWSs); Non-transient, non-community water systems (NTNCWSs).
State and tribal agencies	Agencies responsible for drinking water regulatory development and enforcement.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities that could be affected by this action once promulgated. To determine whether a facility or activities could be affected by this action, this proposed rule should be carefully examined. Questions regarding the applicability of this action to a particular entity may be directed to the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

II. Background

A. What are PFAS?

PFAS are a large class of specialized synthetic chemicals that have been in use since the 1940s (USEPA, 2018a). This proposed regulation only applies to certain PFAS: PFOA, PFOS, PFHxS, HFPO–DA, PFNA, and PFBS. People may potentially be exposed to these PFAS through certain consumer products such as textiles (*e.g.,* seat covers, sail covers, weather protection (Janousek et al., 2019)), leather shoes as well as shoe polish/wax (Norden, 2013; Borg and Ivarsson, 2017), along with cooking/baking wares (Blom and Hanssen 2015; KEMI, 2015; Glüge et al., 2020), occupational contact, and/or by consuming food and drinking water that contain PFAS. Due to their widespread use, physicochemical properties, and prolonged persistence, many PFAS co-occur in exposure media (*e.g.,* air, water, ice, sediment), and bioaccumulate in tissues and blood of aquatic as well as terrestrial organisms, including humans (Domingo and Nadal, 2019; Fromme et al., 2009). Industrial workers who are involved in manufacturing or processing fluoropolymers, or people who live or recreate near fluoropolymer facilities, may encounter greater exposures; particularly of PFOA, PFNA, as well as HFPO–DA. Firefighters as well as people who live near airfields or military bases may have especially higher exposure to PFHxS and PFBS due to the use of aqueous foam forming film as a fire suppressant. Pregnant and lactating women, as well as children, may be more sensitive to the harmful effects of certain PFAS, for example, PFOA, PFOS, PFNA, and PFBS. For example, studies indicate that PFOA and PFOS exposure above certain levels may result in adverse health effects, including developmental effects to fetuses during pregnancy or to breast- or formula-fed infants, cancer, immunological effects, among others (USEPA, 2023b; USEPA, 2023c). Other PFAS are also documented to result in a range of adverse health effects (USEPA, 2021a; USEPA, 2021b; ATSDR, 2021; NASEM 2022).

Although most United States production of PFOS, PFOA, and PFNA, along with other long-chain PFAS, was phased out and then generally replaced by production of PFBS, PFHxS, HFPO–DA and other PFAS, EPA is aware of ongoing use of PFOS, PFOA, PFNA, and other long-chain PFAS. Domestic production and import of PFOA has been phased out in the United States by the companies participating in the 2010/2015 PFOA Stewardship Program. Small quantities of PFOA may be produced, imported, and used by companies not participating in the PFOA Stewardship Program and some uses of PFOS are ongoing (see 40 Code of Federal Regulations (CFR) § 721.9582). EPA is also aware of ongoing use of the chemicals available from existing stocks or newly introduced via imports. Additionally, the environmental persistence of these chemicals and formation as degradation products from other compounds may still contribute to their release in the environment.

B. Definitions

The six PFAS proposed for regulation and their relevant Chemical Abstract Service (CAS) registry numbers are:

- PFOA ($C_8F_{15}CO_2$–; CAS: 45285–51–6)
- PFOS ($C_8F_{17}SO_3$–; CAS: 45298–90–6)
- PFHxS ($C_6F_{13}SO_3$–; CAS: 108427–53–8)
- HFPO–DA ($C_6F_{11}O_3$-; CAS: 122499–17–6)
- PFNA ($C_9F_{17}CO_2$–; CAS: 72007–68–2)
- PFBS ($C_4F_9SO_3$–; CAS: 45187–15–3)

These PFAS may exist in multiple forms, such as isomers or associated salts and each form may have a separate CAS Registry number or no CAS at all. Additionally, these compounds have various names under different classification systems. However, at environmentally relevant pHs, these PFAS are expected to dissociate in water to their anionic (negatively charged) forms. For instance, International Union of Pure and Applied Chemistry substance 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy) propanoate (CAS: 122499–17–6), also known as HFPO–DA, is an anionic molecule which has an ammonium salt (CAS: 62037–80–3), a conjugate acid (CAS: 13252–13–6), a potassium salt (CAS: 67118–55–2), and an acyl fluoride precursor (CAS: 2062–98–8), among other variations. At environmentally relevant pHs these all dissociate into the propanoate/anion form (CAS: 122499–17–6). Each PFAS listed has multiple variants with differing chemical connectivity but the same molecular composition; these are known as

[2] The term ''public water system'' means a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections or regularly serves at least twenty-five individuals. Such term includes (i) any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system, and (ii) any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system.

isomers. Commonly, the isomeric composition of PFAS is categorized as 'linear,' consisting of an unbranched alkyl chain, or 'branched,' encompassing a potentially diverse group of molecules including at least one, but potentially more offshoots from the linear molecule. While broadly similar, isomeric molecules may have differences in chemical properties. The proposed regulation covers all salts, isomers and derivatives of the chemicals listed, including derivatives other than the anionic form which might be created or identified.

C. Chemistry, Production and Uses

PFAS are most commonly and widely used to make products resistant to water, heat, and stains. As a result, they are found in industrial and consumer products such as clothing, food packaging, cookware, cosmetics, carpeting, and fire-fighting foam (AAAS, 2020). Facilities associated with PFAS releases into the air, soil, and water include those for manufacturing, chemical as well as well as product production and military installations (USEPA, 2016a; USEPA, 2016b).

The chemical structures of some PFAS cause them to repel water as well as oil, remain chemically and thermally stable, and exhibit surfactant properties. PFAS have strong, stable carbon-fluorine (C–F) bonds, making them resistant to hydrolysis, photolysis, microbial degradation, and metabolism (Ahrens, 2011; Beach et al., 2006; Buck et al., 2011). These properties are what make PFAS useful for commercial and industrial applications and purposes. However, these are also what make some PFAS extremely persistent in the human body and the environment (Calafat et al., 2007, 2019).

PFOA, PFOS, PFHxS, HFPO–DA, PFNA, and PFBS belong to a subset of PFAS known as perfluoroalkyl acids (PFAAs), all of which consist of a perfluorinated alkyl chain connected to an acidic headgroup. Humans are exposed to PFAS due to wide-ranging commercial and industrial applications along with long range migration from sources. The structure of these PFAS contribute to their persistence in the environment as well as their resistance to chemical, biological, and physical degradation processes.

PFOA and PFOS are two of the most widely studied and longest used PFAS. These two compounds have been detected in up to 98 percent of human serum samples taken in biomonitoring studies that are representative of the U.S. general population; however, since PFOA and PFOS have been voluntarily phased out in the U.S., serum concentrations have been declining (CDC, 2019). The sole U.S. manufacturer of PFOS agreed to a voluntary phaseout in 2000, and the last reported production was in 2002 (USEPA, 2000b; USEPA, 2018b; USEPA, 2021c). PFOS has been used as a surfactant or emulsifier in firefighting foam, circuit board etching acids, alkaline cleaners, floor polish, and as a pesticide active ingredient for insect bait traps (HSBD, 2016). PFOA has been used as an emulsifier and surfactant in fluoropolymers (such as in the manufacturing of non-stick products like Teflon©), firefighting foams, cosmetics, grease and lubricants, paints, polishes, and adhesives (HSBD, 2016).

PFNA was historically the second most used surfactant for emulsion polymerization (after PFOA) which was its main use (Buck et al., 2012). Fluorinated surfactants improve the physical properties of the polymer as well as improving the polymerization rate (Glüge et al., 2020). Fluoropolymers are used in many applications because of their unique physical properties such as resistance to high and low temperatures, resistance to chemical and environmental degradation, and nonstick characteristics. Fluoropolymers also have dielectric and fire-resistant properties that have a wide range of electrical and electronic applications, including architecture, fabrics, automotive uses, cabling materials, electronics, pharmaceutical and biotech manufacturing, and semiconductor manufacturing (Gardiner, 2014). Although drying processes can release the surfactants when manufacturing is complete, surfactant residues remain in the finished products (KEMI, 2015). Legacy stocks may still be used and products containing PFNA may still be produced internationally and imported to the U.S. (ATSDR, 2021).

The voluntary phase out caused a shift to alternatives such as per- and polyfluoroalkyl ether carboxylic acids (PFECAs). The chemical HFPO–DA is the most prevalent of these and is used in a processing aid technology developed by DuPont to make fluoropolymers without using PFOA. The chemicals associated with this process are commonly known as GenX Chemicals and the term is often used interchangeably for HFPO–DA along with its ammonium salt (USEPA, 2021b). The most common use for GenX Chemicals is for emulsion polymerization.

Another alternative, PFBS, is mainly used as a water and stain repellent protection for leather, textiles, carpets, and porous hard surfaces, representing 25–50 tons/year of PFBS in mixtures (Norwegian Environment Agency, 2017). PFBS and related chemicals are also used in curatives for fluoroelastomers (Glüge et al., 2020). The curatives are used for manufacturing O-rings, seals, linings, protective clothing, cooking wares, and flame retardants (Norwegian Environment Agency, 2017; Blom and Hanssen, 2015).

PFHxS is used in stain-resistant fabrics, fire-fighting foams, flame retardants, insecticides, and as a surfactant in industrial processes (Glüge et al., 2020). Additionally, particle accelerators including the Delphi Detector at Stanford University rely on liquid PFHxS (Glüge et al., 2020). PFHxS production, along with PFOS, was phased out in 2002 nationwide however, production continues in other countries and products containing PFHxS may be imported into the U.S. (USEPA, 2000c). Legacy stocks may also still be used.

D. Human Health Effects

The publicly available landscape of human epidemiological and experimental animal-based exposure-effect data from repeat-dose studies across PFAS derive primarily from linear carboxylic and sulfonic acid species such as PFOA, PFOS, PFHxS, PFNA, and PFBS (ATSDR, 2021). Many other PFAS have preliminary human health effects data (Mahoney et al., 2022) and some PFAS, such as PFBS and HFPO–DA, have sufficient data that has allowed EPA to derive toxicity values and publish toxicity assessments (USEPA, 2021a; USEPA, 2021b). The adverse health effects observed following oral exposure to such PFAS are significant and diverse and include (but are not limited to): cancer and effects on the liver (*e.g.,* liver cell death), growth and development (*e.g.,* low birth weight), hormone levels, kidney, immune system, lipid levels (*e.g.,* high cholesterol), the nervous system, and reproduction. Please see sections III.B, IV, and V of this preamble for additional discussion on health considerations for the six PFAS EPA is proposing to regulate in this document.

E. Statutory Authority

Section 1412(b)(1)(A) of SDWA requires EPA to establish NPDWRs for a contaminant where the Administrator determines that the contaminant: (1) may have an adverse effect on the health of persons; (2) is known to occur or there is a substantial likelihood that the contaminant will occur in PWSs with a frequency and at levels of public health concern; and (3) where in the sole

judgment of the Administrator, regulation of such contaminant presents a meaningful opportunity for health risk reduction for persons served by PWSs.

F. Statutory Framework and PFAS Regulatory History

Section 1412(b)(1)(B)(i) of SDWA requires EPA to publish a Contaminant Candidate List (CCL) every five years. The CCL is a list of contaminants that are known or anticipated to occur in PWSs and are not currently subject to any proposed or promulgated NPDWRs. EPA uses the CCL to identify priority contaminants for regulatory decision-making (*i.e.,* regulatory determinations), and information collection. Contaminants listed on the CCL may require future regulation under SDWA. EPA included PFOA and PFOS on the third and fourth CCLs published in 2009 (USEPA, 2009a) and 2016 (USEPA, 2016c). The Agency published the fifth CCL (CCL 5) earlier this year and it includes PFAS as a chemical group (USEPA, 2022b).

EPA collects data on the CCL contaminants to better understand their potential health effects and to determine the levels at which they occur in PWSs. SDWA 1412(b)(1)(B)(ii) requires that, every five years and after considering public comments on a ''preliminary'' regulatory determination, EPA issue a final regulatory determination to regulate or not regulate at least five contaminants on each CCL. In addition, Section 1412(b)(1)(B)(ii)(III) authorizes EPA to make a determination to regulate a contaminant not listed on the CCL so long as the contaminant meets the three statutory criteria based on available public health information. SDWA 1412(b)(1)(B)(iii) requires that ''each document setting forth the determination for a contaminant under clause (ii) shall be available for public comment at such time as the determination is published.'' To implement these requirements, EPA issues preliminary regulatory determinations subject to public comment and then issues a final regulatory determination after consideration of public comment. For any contaminant that EPA determines meets the criteria for regulation under SDWA 1412(b)(1)(A), Section 1412(b)(1)(E) requires that EPA propose a NPDWR within two years and promulgate a final regulation within 18 months of the proposal (which may be extended by 9 additional months).

EPA implements a monitoring program for unregulated contaminants under SDWA 1445(a)(2) which requires that once every five years, EPA issue a list of priority unregulated contaminants to be monitored by PWSs. This monitoring is implemented through the Unregulated Contaminant Monitoring Rule (UCMR), which collects data from CWSs and NTNCWSs. The first four UCMRs collected data from a census of large water systems (serving more than 10,000 people) and from a statistically representative sample of small water systems (serving 10,000 or fewer people). Water system monitoring data for six PFAS were collected during the third UCMR (UCMR3) between 2013 to 2015. The fifth UCMR (UCMR5), published December 2021, requires sample collection and analysis for 29 PFAS to occur between 2023 and 2025 using analytical methods developed by EPA and consensus organizations. Section 2021 of America's Water Infrastructure Act of 2018 (AWIA) (Pub. L. 115–270) amended SDWA and specifies that, subject to the availability of EPA appropriations for such purpose and sufficient laboratory capacity, EPA must require all PWSs serving between 3,300 and 10,000 people to monitor and ensure that a nationally representative sample of systems serving fewer than 3,300 people monitor for the contaminants in UCMR 5 and future UCMR cycles. All large water systems continue to be required to participate in the UCMR program. Section VII of this preamble provides additional discussion on PFAS occurrence. Additionally, while the UCMR 5 information will not be available to inform this proposal, EPA is proposing to consider the UCMR 5 data to support implementation of monitoring requirements under the proposed rule. Section IX of this preamble further discusses monitoring and compliance requirements.

After careful consideration of public comments, EPA issued final regulatory determinations for contaminants on the fourth CCL in March of 2021 (USEPA, 2021d) which included determinations to regulate two contaminants, PFOA and PFOS, in drinking water. EPA found that PFOA and PFOS may have an adverse effect on the health of persons; that these contaminants are known to occur, or that there is a substantial likelihood that they will occur, in PWSs with a frequency and at levels that present a public health concern; and that regulation of PFOA and PFOS presents a meaningful opportunity for health risk reduction for persons served by PWSs. As discussed in the final Regulatory Determinations 4 Notice for CCL 4 contaminants (USEPA, 2021d) and EPA's PFAS Strategic Roadmap (USEPA, 2022c), the Agency has also evaluated additional PFAS chemicals for regulatory consideration as supported by the best available science. The Agency preliminarily finds that additional PFAS compounds also meet SDWA criteria for regulation. EPA's preliminary regulatory determination for these additional PFAS is discussed in section III of this preamble.

Section 1412(b)(1)(E) provides that the Administrator may publish a proposed drinking water regulation concurrent ''with a determination to regulate.'' This provision authorizes a more expedited process by allowing EPA to make concurrent the regulatory determination and rulemaking processes. As a result, EPA interprets the reference to ''determination to regulate'' in Section 1412(b)(1)(E) as referring to the regulatory process in 1412(b)(1)(B)(ii) that begins with a preliminary determination. Under this interpretation, Section 1412(b)(1)(E) authorizes EPA to issue a preliminary determination to regulate a contaminant and a proposed NPDWR addressing that contaminant concurrently and request public comment at the same time. This allows EPA to act efficiently to issue a final determination to regulate concurrently with a final NPDWR to avoid delays to address contaminants that meet the statutory criteria. As a result, this proposal contains both a preliminary determination to regulate four PFAS contaminants and proposed regulations for those contaminants as well as the two PFAS contaminants (PFOA and PFOS) for which EPA has already issued a final Regulatory Determination. EPA developed a proposed MCLG and a proposed NPDWR for six PFAS compounds pursuant to the requirements under section 1412(b)(1)(B) of SDWA. The proposed MCLGs and proposed NPDWR are discussed in more detail below.

G. Bipartisan Infrastructure Law

The Agency notes that the passage of the Infrastructure Investment and Jobs Act, also referred to as the BIL, invests over $11.7 billion in the Drinking Water SRF; $4 billion to the Drinking Water SRF for Emerging Contaminants; and $5 billion to Small, Underserved, and Disadvantaged Communities Grants. These funds will assist many disadvantaged communities, small systems, and others with the costs of installation of treatment when it might otherwise be cost-challenging. These funds can also be used to address emerging contaminants like PFAS in drinking water through actions such as technical assistance, water quality testing, and contractor training, which will allow communities supplemental funding to meet their obligations under

this proposed regulation and help ensure protection from PFAS contamination of drinking water.

H. EPA PFAS Strategic Roadmap

In October 2021, EPA published the PFAS Strategic Roadmap that outlined the Agency's plan to ''further the science and research, to restrict these dangerous chemicals from getting into the environment, and to immediately move to remediate the problem in communities across the country'' (USEPA, 2022c). Described in the Roadmap are key commitments the Agency made toward addressing these contaminants in the environment. With this proposal, EPA is delivering on a key commitment in the Roadmap to ''establish a National Primary Drinking Water Regulation'' for proposal and is working toward promulgating the final NPDWR in Fall of 2023.

III. Preliminary Regulatory Determinations for Additional PFAS

Since 2021 when EPA determined to regulate two PFAS contaminants, PFOA and PFOS, EPA has evaluated additional PFAS compounds for regulatory consideration and has preliminarily determined that an additional four individual PFAS and mixtures of these PFAS meet SDWA criteria for regulation. Section 1401(6) defines the term ''contaminant'' to mean ''any physical, chemical or biological or radiological substance or matter in water.'' A mixture of two or more ''contaminants'' qualifies as a ''contaminant'' because the mixture itself is ''any physical, chemical or biological or radiological substance or matter in water.'' (emphasis added). Therefore, pursuant to the provisions outlined in Section 1412(b)(1)(A) and 1412(b)(1)(B) of SDWA, the Agency is making a preliminary determination to regulate PFHxS, HFPO–DA, PFNA, and PFBS in drinking water, and mixtures of these PFAS contaminants. PFHxS, HFPO–DA, PFNA, and PFBS, and mixtures of these PFAS, are known to cause adverse human health effects; there is substantial likelihood that they will occur and co-occur in PWSs with a frequency and at levels of public health concern, particularly when considering them in a mixture; and in the sole judgment of the Administrator, regulation of PFHxS, HFPO–DA, PFNA, PFBS and mixtures of these PFAS present a meaningful opportunity for health risk reductions for people served by PWSs. This section describes the best available science and information used by the Agency to support this preliminary Regulatory Determination. The proposed MCLG and enforceable standard for these four PFAS and mixtures of these PFAS are discussed further in sections V to VI of this preamble.

A. Agency Findings

To support the Agency's preliminary Regulatory Determination, EPA examined health effects information from available peer reviewed human health assessments as well as drinking water monitoring data collected as part of the UCMR 3 and state-led monitoring efforts. EPA finds that oral exposure to PFHxS, HFPO–DA, PFNA, and PFBS may individually and in a mixture each result in adverse health effects, including disrupting multiple biological pathways that result in common adverse effects on several biological systems including the endocrine, cardiovascular, developmental, immune, and hepatic systems (USEPA, 2023a). PFAS, including PFHxS, HFPO–DA, PFNA, and PFBS and their mixtures are anticipated to affect common target organs, tissues, or systems to produce dose-additive effects from co-exposures. Additionally, based on the Agency's evaluation of the best-available science, EPA finds that PFHxS, HFPO–DA, PFNA, and PFBS each have a substantial likelihood to occur in finished drinking water and that these PFAS are also likely to co-occur as mixtures and result in increased exposure above levels of health concern. Therefore, given this high occurrence and co-occurrence likelihood and that adverse health effects arise as a result of both these PFAS individually and as mixtures, the Agency is preliminarily determining that PFHxS, HFPO–DA, PFNA, and PFBS and their mixtures may have adverse human health effects; there is a substantial likelihood that PFHxS, HFPO–DA, PFNA, PFBS and mixtures of these PFAS, will occur and co-occur in PWSs with a frequency and at levels of public health concern; and in the sole judgment of the Administrator, regulation of PFHxS, HFPO–DA, PFNA, and PFBS, and their mixtures, presents a meaningful opportunity for health risk reductions for persons served by PWSs.

B. Statutory Criterion 1—Adverse Health Effects

The Agency finds that PFHxS, HFPO–DA, PFNA, PFBS and their mixtures may have an adverse effect on the health of persons. Discussion related to health effects for each of the four PFAS is below. For this proposal, the Agency is developing HBWCs for PFHxS, HFPO–DA, PFNA and PFBS, defined as a level protective of health effects over a lifetime of exposure, including sensitive populations and life stages. Each of the four HBWCs is used in this proposal to evaluate occurrence data and the likelihood of potential risk to human health to justify the agency's preliminary regulatory determinations for PFHxS, HFPO–DA, PFNA and PFBS. The chemical-specific HBWCs are also used to assess the potential human health risk associated with mixtures of the four PFAS in drinking water using the HI approach. Additional details on the HBWC for PFHxS, HFPO–DA, PFNA and PFBS are found in section IV of this preamble. More information supporting EPA's preliminary regulatory determination relating to adverse health effects for these PFAS and the HI approach for mixtures is available in section V of this preamble.

1. PFHxS

Toxicity studies of oral PFHxS exposure in animals have reported adverse health effects on the liver, thyroid, and development (ATSDR, 2021). EPA has not yet classified the carcinogenicity of PFHxS. For a detailed discussion on adverse effects of oral exposure to PFHxS, please see ATSDR (2021) and USEPA (2023a).

The HBWC for PFHxS is derived using a chronic reference value based on an Agency For Toxic Substances And Disease Registry (ATSDR) intermediate-duration oral Minimal Risk Level, which was based on thyroid effects seen in male rats after oral PFHxS exposure (ATSDR, 2021). The most sensitive non-cancer effect observed was thyroid follicular epithelial hypertrophy/hyperplasia in parental male rats exposed to PFHxS for 42–44 days, identified in the critical developmental toxicity study selected by ATSDR (no observed adverse effect level (NOAEL) of 1 mg/kg/day) (Butenhoff et al., 2009; ATSDR, 2021). To derive the intermediate-duration Minimal Risk Level for PFHxS, ATSDR calculated a human equivalent dose (HED) of 0.0047 mg/kg/day from the NOAEL of 1 mg/kg/day identified in the principal study. Then, ATSDR applied a total uncertainty factor (UF)/modifying factor (MF) of 300X (10X UF for intraspecies variability, 3X UF for interspecies differences, and a 10X MF for database deficiencies) to yield an intermediate-duration oral Minimal Risk Level of 0.00002 mg/kg/day (ATSDR, 2021). Per Agency guidance (USEPA, 2002), to calculate the HBWC, EPA applied an additional UF of 10 to adjust for subchronic-to-chronic duration (UF_S) because the effect was not in a developmental life stage (*i.e.,* thyroid follicular epithelial hypertrophy/hyperplasia in parental male rats). The

resulting chronic reference value was 0.000002 mg/kg/day.

No sensitive population or life stage was identified for bodyweight-adjusted drinking water intake (DWI–BW) selection for PFHxS because the critical effect on which the ATSDR Minimal Risk Level was based (thyroid alterations) was observed in adult male rats. Since this exposure life stage does not correspond to a sensitive population or life stage, a DWI–BW for adults within the general population (0.034 L/kg/day; 90th percentile direct and indirect consumption of community water, consumer-only two-day average, adults 21 years and older) was selected for HBWC derivation (USEPA, 2019a).

EPA calculated the HBWC for PFHxS using a relative source contribution (RSC) of 0.20. This means that 20% of the exposure—equal to the chronic reference value—is allocated to drinking water, and the remaining 80% is attributed to all other potential exposure sources. This was based on EPA's determination that the available data on PFHxS exposure routes and sources did not permit quantitative characterization of PFHxS exposure. In such cases, an RSC of 0.20 is typically used (USEPA, 2000c). See U.S.EPA (2023a) for complete details on the RSC determination for PFHxS.

As further described in USEPA (2023a) and section V of this preamble below, the HBWC for PFHxS is calculated to be 9.0 ppt. This HBWC of 9.0 ppt is also used as the health reference level (HRL) for this preliminary regulatory determination.

2. HFPO–DA

EPA's 2021 *Human Health Toxicity Assessment for GenX Chemicals* describes potential health effects associated with oral exposure to HFPO–DA (USEPA, 2021b). Toxicity studies in animals indicate that exposures to HFPO–DA may result in adverse health effects, including liver and kidney toxicity and immune system, hematological, reproductive, and developmental effects (USEPA, 2021b). There is *Suggestive Evidence of Carcinogenic Potential* of oral exposure to HFPO–DA in humans, but the available data are insufficient to derive a cancer risk concentration in water for HFPO–DA. For a detailed discussion on adverse effects of oral exposure to HFPO–DA, please see USEPA (2021b).

EPA's noncancer HBWC for HFPO–DA is derived from a reference dose (RfD) that is based on liver effects observed following oral exposure of mice to HFPO–DA (USEPA, 2021b). The most sensitive noncancer effect observed was a constellation of liver lesions in parental female mice exposed to HFPO–DA by gavage for 53–64 days, identified in the critical reproductive/developmental toxicity study selected by EPA (NOAEL of 0.1 mg/kg/day) (DuPont, 2010; USEPA, 2021b). To develop the chronic RfD for HFPO–DA, EPA derived an HED of 0.01 mg/kg/day from the NOAEL of 0.1 mg/kg/day identified in the principal study. EPA then applied a composite UF of 3,000 (*i.e.,* 10X for intraspecies variability, 3X for interspecies differences, 10X for extrapolation from a subchronic to a chronic dosing duration, and 10X for database deficiencies) to yield the chronic RfD (USEPA, 2021b).

To select an appropriate DWI–BW for use in derivation of the noncancer HBWC values for HFPO–DA, EPA considered the HFPO–DA exposure interval used in the oral reproductive/developmental toxicity study in mice that was the basis for chronic RfD derivation (the critical study). In this study, parental female mice were dosed from pre-mating through lactation, corresponding to three potentially sensitive human adult life stages that may represent critical windows of exposure for HFPO–DA: women of childbearing age, pregnant women, and lactating women (Table 3–63 in USEPA, 2019a). Of these three, the DWI–BW for lactating women (0.0469 L/kg/day) is anticipated to be protective of the other two sensitive life stages. Therefore, EPA used the DWI–BW for lactating women to calculate the HBWC for the proposed regulation, which is also used for the HRL for the preliminary regulatory determination.

The HBWC value for HFPO–DA was calculated using an RSC of 0.20. This means that 20% of the exposure—equal to the RfD—is allocated to drinking water, and the remaining 80% is attributed to all other potential exposure sources (USEPA, 2022d). Selection of this RSC was based on EPA's determination that the available exposure data for HFPO–DA did not enable a quantitative characterization of relative HFPO–DA exposure sources and routes. In such cases, an RSC of 0.20 is typically used (USEPA, 2000c).

As further described in USEPA (2023a) and USEPA (2022d), the HBWC for HFPO–DA is calculated to be 10.0 ppt. This value is consistent with EPA's 2022 drinking water health advisory for HFPO–DA (USEPA, 2022d), but was derived from EPA's 2021 Human Health Toxicity Assessment for HFPO–DA (USEPA, 2021b). This HBWC of 10 ppt is also used as the HRL for this preliminary Regulatory Determination for HFPO–DA.

3. PFNA

Animal toxicity studies have reported adverse health effects, specifically on development, reproduction, immune function, and the liver, after oral exposure to PFNA (ATSDR, 2021). EPA has not yet classified the carcinogenicity of PFNA. For a detailed discussion on adverse effects of oral exposure to PFNA, please see ATSDR (2021) and USEPA (2023a).

The HBWC for PFNA is derived using a chronic reference value based on an ATSDR intermediate-duration oral Minimal Risk Level, which was based on developmental effects seen in mice after oral PFHxS exposure (ATSDR, 2021). The most sensitive non-cancer effects were decreased body weight (BW) gain and developmental delays (*i.e.,* delayed eye opening, preputial separation, and vaginal opening) in mice born to mothers that were gavaged with PFNA from gestational days (GD) 1–17, with continued exposure through lactation and monitoring until postnatal day (PND) 287, identified in the critical developmental toxicity study selected by ATSDR (NOAEL of 1 mg/kg/day) (Das et al., 2015; ATSDR, 2021). To derive the intermediate-duration Minimal Risk Level, ATSDR calculated an HED of 0.001 mg/kg/day from the NOAEL of 1 mg/kg/day identified in the principal study. Then, ATSDR applied a total UF/MF of 300X (total UF of 30X and a MF of 10X for database deficiencies) to yield an intermediate-duration Minimal Risk Level of 0.000003 mg/kg/day. EPA did not apply an additional UF to adjust for subchronic-to-chronic duration (*i.e.,* UF_S) to calculate the chronic reference value because the critical effects were observed during a developmental life stage (USEPA, 2002). The chronic reference value of 0.000003 mg/kg/day was used to derive the HBWC for PFNA.

Based on the life stages of exposure in the principal study from which the intermediate-duration Minimal Risk Level was derived (*i.e.,* during gestation and lactation), EPA identified three potentially sensitive life stages that may represent critical windows of exposure for PFNA: women of childbearing age (13 to < 50 years), pregnant women, and lactating women (Table 3–63 in USEPA, 2019a). The DWI–BW for lactating women (0.0469 L/kg/day; 90th percentile direct and indirect consumption of community water, consumer-only two-day average) was selected to calculate the HBWC for PFNA because it is the highest of the three DWI–BWs and is anticipated to be protective of the other two sensitive life stages.

EPA calculated the HBWC for PFNA using an RSC of 0.20. This means that 20% of the exposure—equal to the chronic reference value—is allocated to drinking water, and the remaining 80% is attributed to all other potential exposure sources. This was based on EPA's determination that the available data on PFNA exposure routes and sources did not permit quantitative characterization of PFNA exposure. In such cases, an RSC of 0.20 is typically used (USEPA, 2000c). See USEPA (2023a) for complete details on the RSC determination for PFNA.

As further described in USEPA (2023a), the HBWC for PFNA is calculated to be 100 ppt. This HBWC of 10.0 ppt is also used as the HRL for this preliminary Regulatory Determination for PFNA.

4. PFBS

EPA's 2021 *PFBS Toxicity Assessmen*t describe potential health effects associated with oral PFBS exposure (USEPA, 2021a). Toxicity studies of oral PFBS exposures in animals have reported adverse health effects on development, as well as the thyroid and kidneys (USEPA, 2021a). Human and animal studies evaluated other health effects following PFBS exposure including effects on the immune, reproductive, and hepatic systems and lipid and lipoprotein homeostasis, but the evidence was determined to be equivocal (USEPA, 2021a). No studies evaluating the carcinogenicity of PFBS in humans or animals were identified. EPA concluded that there is ''Inadequate Information to Assess Carcinogenic Potential'' for PFBS and K+PFBS by any route of exposure. For a detailed discussion on adverse effects of oral exposure to PFBS, please see USEPA (2021a).

EPA's noncancer HBWC for PFBS is derived from a chronic RfD that is based on thyroid effects observed following gestational exposure of mice to K+PFBS (USEPA, 2021a; USEPA, 2022e). The most sensitive non-cancer effect observed was decreased serum total thyroxine (T4) in newborn (PND 1) mice gestationally exposed to K+PFBS from GD 1–20, identified in the critical developmental toxicity study selected by EPA (benchmark dose lower confidence limit HED or BMDLHED) of 0.095 mg/kg/day) (Feng et al., 2017; USEPA, 2021a). To develop the chronic RfD for PFBS, EPA applied a composite UF of 300 (*i.e.,* 10X for intraspecies uncertainty factor (UF_H), 3X for interspecies uncertainty factor (UF_A), and 10X for database uncertainty factor (UF_D)) to yield a value of 0.0003 mg/kg/day (USEPA, 2021a).

To select an appropriate DWI–BW for use in deriving the noncancer HBWC value, EPA considered the PFBS exposure interval used in the developmental toxicity study in mice that was the basis for chronic RfD derivation. In this study, pregnant mice were exposed throughout gestation, which is relevant to two human adult life stages: women of child-bearing age who may be or become pregnant, and pregnant women and their developing embryo or fetus (Table 3–63 in USEPA, 2019a). Of these two, EPA selected the DWI–BW for women of child-bearing age (0.0354 L/kg/day) to derive the noncancer HBWC for PFBS because it was higher and therefore more health-protective (USEPA, 2022e).

The HBWC value for PFBS was calculated using an RSC of 0.20. This means that 20% of the exposure—equal to the RfD—is allocated to drinking water, and the remaining 80% is attributed to all other potential exposure sources (USEPA, 2022e). This was based on EPA's determination that the available data on PFBS exposure routes and sources did not enable a quantitative characterization of PFBS exposure. In such cases, an RSC of 0.20 is typically used (USEPA, 2000c).

As further described in USEPA (2022e), the HBWC for PFBS is calculated to be 2000 ppt. This value is consistent with EPA's 2022 drinking water health advisory for PFBS (USEPA, 2022d), but was derived from EPA's 2021 PFBS Toxicity Assessment (USEPA, 2021a). This HBWC of 2000 ppt is also used as the HRL for this preliminary Regulatory Determination for PFBS.

5. Mixtures of PFHxS, HFPO–DA, PFNA, and PFBS

PFAAs, including PFHxS, HFPO–DA, PFNA, and PFBS, disrupt signaling of multiple biological pathways resulting in common adverse effects on several biological systems including thyroid hormone levels, lipid synthesis and metabolism, as well as on development, and immune and liver function (ATSDR, 2021; EFSA, 2018, 2020; USEPA, 2023a).

Studies with PFAS and other classes of chemicals support the health protective assumption that a mixture of chemicals with similar observed effects should be assumed to also act in a dose additive manner unless data demonstrate otherwise (USEPA, 2023d). Dose additivity means that each of the component chemicals in the mixture (in this case, PFHxS, HFPO–DA, PFNA, and PFBS) behaves as a concentration or dilution of every other chemical in the mixture differing only in relative toxicity (USEPA, 2000a). See additional discussion of PFAS dose additivity in Section V.C of this preamble.

C. Statutory Criterion 2—Occurrence

With this proposal, EPA is preliminarily determining that PFHxS, HFPO–DA, PFNA, and PFBS, both individually and as mixtures of these PFAS, meet SDWA's second statutory criterion for regulatory determination: there is a substantial likelihood that the contaminants will occur and co-occur with a frequency and at levels of public health concern in PWSs based on EPA's evaluation of the best available occurrence information. EPA is seeking public comment on whether additional data or studies exist which EPA should consider that support or do not support this preliminary determination.

EPA has made its preliminary determination based on the most recent, publicly available data, which includes UCMR 3 data and more recent PFAS drinking water data collected by several states. Informed by these data, EPA determined that there is a substantial likelihood PFHxS, HFPO–DA, PFNA, and PFBS will occur and co-occur with a frequency of public health concern. Additionally, when determining that there is a substantial likelihood these PFAS will occur at levels of public health concern, EPA considered both the occurrence concentration levels for each contaminant individually, as well as their collective co-occurrence and corresponding dose additive health effects from co-exposures. Furthermore, the Agency notes that it does not have a bright-line threshold for occurrence in drinking water that triggers whether a contaminant is of public health concern. A determination of public health concern involves consideration of a number of factors, some of which include the level at which the contaminant is found in drinking water, the frequency at which the contaminant is found and at which it co-occurs with other contaminants, whether there is an sustained upward trend that these contaminant will occur at a frequency and at levels of public health concern, the geographic distribution (national, regional, or local occurrence), the impacted population, health effect(s), the potency of the contaminant, other possible sources of exposure, and potential impacts on sensitive populations or lifestages. Given the many possible combinations of factors, a simple threshold is not viable and is a highly contaminant-specific decision that takes into consideration multiple factors.

UCMR 3 monitoring occurred between 2013 and 2015 for PFHxS,

PFNA, and PFBS. HFPO–DA were not monitored for as part of the UCMR 3. Under the UCMR 3, 36,972 samples from 4,920 PWSs were analyzed for PFHxS, PFNA, and PFBS. The minimum reporting levels (MRLs) for PFHxS, PFNA, and PFBS were 30 ppt, 20 ppt, and 90 ppt, respectively. EPA notes that these UCMR 3 MRLs are higher than those utilized within the majority of state monitoring data and for the upcoming UCMR 5. A total of 233 samples and 70 systems serving a total population of approximately 6.7 million people had reported detections (greater than or equal to the MRL) of at least one of the three compounds. Moreover, the large majority of these UCMR 3 reported detections were found at concentrations at or above levels of public health concern as described previously in section III.B of this preamble and below within this section. USEPA (2023e) presents sample and system level summaries of the results for the individual contaminants. More information supporting EPA's regulatory determination relating to the occurrence of these PFAS and their mixtures is included in section VII.A. of this preamble.

EPA has also collected more recent finished drinking water data from 23 states who have made their data publicly available as of August 2021 (USEPA, 2023e). EPA used this cutoff date to allow the Agency to conduct thorough analyses of the state information. EPA further refined this dataset based on representativeness and reporting limitations, resulting in detailed technical analyses using a subset of the available state data (*i.e.,* all 23 states' data were not included within the detailed technical analyses). For example, a few states only reported results as a combination of analytes which was not conducive for analyzing PFAS. In general, the state data which were more recently collected using newer analytical methods that have lower reporting limits than those under UCMR 3 show widespread occurrence of PFOA, PFOS, PFHxS, PFNA, and PFBS in multiple geographic locations. These data also show that there is a substantial likelihood that these PFAS occur at concentrations below UCMR 3 reporting limits. Furthermore, these data include results for more PFAS than were included in the UCMR 3, including HFPO–DA, and show that PFHxS, HFPO–DA, PFNA, and PFBS, and mixtures of these PFAS, occur and co-occur at levels of public health concern as they are measured at concentrations above their respective individual HRLs or, when considering their dose additive impacts, exceed these levels. The Agency notes that the data vary in terms of quantity and coverage, including that some of these available data are from targeted or site-specific sampling efforts (*i.e.,* monitoring specifically in areas of known or potential contamination) and thus may be expected to have higher detection rates or not be representative of levels found in all PWSs within the state.

Tables 1 and 2 below show the percent of samples with state reported detections of PFHxS, HFPO–DA, PFNA, and PFBS, and the percentage of monitored systems with detections of PFHxS, HFPO–DA, PFNA, and PFBS, respectively, across the non-targeted or non-site specific (*i.e.,* monitoring not conducted specifically in areas of known or potential contamination) state finished water monitoring data.

EPA notes that different states utilized various reporting thresholds or limits when presenting their data, and for some states there were no clearly defined limits publicly provided. Further, the limits often varied within the data for each state depending on the specific analyte, as well as the laboratory analyzing the data. When conducting data analyses, EPA incorporated individual state-specific reporting limits where possible. In some cases, states reported data at concentrations below EPA's proposed rule trigger level for reduced compliance monitoring frequency and/or PQLs described in sections VIII.A., IX.A., and IX.B of this preamble. However, to present the best available occurrence data, EPA collected and evaluated the data based on the information as reported directly by the states. EPA also notes, and as described in further detail in section VIII.A. of this preamble, some laboratories are able to detect and measure the PFAS addressed in this document at lower concentrations than EPA's proposed rule trigger level and PQLs which account for differences in the capability of laboratories across the country. As such, EPA believes this data can reasonably support EPA's evaluation of PFOA, PFOS, PFHxS, HFPO–DA, PFNA, and PFBS occurrence and co-occurrence in drinking water. Specific details on state data reporting thresholds are available in Table 1 within USEPA (2023e).

TABLE 1—NON-TARGETED STATE PFAS FINISHED WATER DATA—SUMMARY OF SAMPLES WITH STATE REPORTED DETECTIONS [1] OF PFHxS, HFPO–DA, PFNA, AND PFBS

State	PFHxS (%)	PFNA (%)	PFBS (%)	HFPO–DA (%)
Colorado	10.8	0.9	11.0	0.2
Illinois	5.1	0.2	7.8	0.0
Kentucky	8.6	2.5	12.3	13.6
Massachusetts	31.9	4.6	35.5	0.0
Michigan	2.9	0.1	5.2	0.04
New Hampshire	16.6	3.3	31.4	3.8
New Jersey	24.7	8.0	24.9	N/A
North Dakota	1.6	0.0	0.0	0.0
Ohio	5.8	0.3	4.7	0.1
South Carolina	13.5	2.1	38.3	6.0
Vermont	2.2	1.7	4.8	0.2

Notes:
[1] Detections determined by individual state reported limits which are not defined consistently across all states.

TABLE 2—NON-TARGETED STATE PFAS FINISHED WATER DATA—SUMMARY OF MONITORED SYSTEMS WITH STATE REPORTED [1] DETECTIONS OF PFHxS, HFPO–DA, PFNA, AND PFBS

State	PFHxS (%)	PFNA (%)	PFBS (%)	HFPO–DA (%)
Colorado	13.4	1.0	13.4	0.3
Illinois	4.3	0.2	6.6	0.0
Kentucky	8.6	2.5	12.3	13.6
Massachusetts	30.2	8.4	39.4	0.0
Michigan	3.0	0.2	5.3	0.1
New Hampshire	22.5	5.5	37.9	5.1
New Jersey	32.6	13.3	34.0	N/A
North Dakota	1.6	0.0	0.0	0.0
Ohio	2.2	0.3	2.4	0.1
South Carolina	20.0	6.1	56.0	10.9
Vermont	1.6	1.3	5.2	0.5

Notes:
[1] Detections determined by individual state reported limits which are not defined consistently across all states.

As shown in Tables 1 and 2, all states except one report sample and system detections for at least three of the four PFAS. For those states that reported detections, the percentage of samples and systems where these PFAS were found ranged from 0.1 to 38.3 percent and 0.1 to 56.0 percent, respectively. While these percentages show occurrence variability across states, several of these states demonstrate a significant number of samples (*e.g.,* detections of PFHxS in 31.9 percent of Massachusetts samples) and systems (*e.g.,* detections of HFPO–DA in 13.9 percent of monitored systems in Kentucky) with some or all of the four PFAS, which supports the Agency's preliminary determination that there is a substantial likelihood these PFAS and their mixtures occur and co-occur with a frequency of public health concern. Specific discussion related to occurrence for each of the four PFAS is below.

1. PFHxS

The occurrence data presented above, throughout section VII. of this preamble and discussed in the USEPA (2023e) support the Agency's preliminary determination that there is a substantial likelihood PFHxS occurs with a frequency and at levels of public health concern in drinking water systems across the United States. PFHxS was found under UCMR 3 in approximately 1.1% of systems using an MRL of 30 ppt. All UCMR 3 reported values are greater than the HRL of 9.0 ppt. Additionally, through analysis of available non-targeted state data all states in Tables 1 and 2 had reported detections of PFHxS within 1.6 to 32.6 percent of their systems and reported concentrations ranging from 0.46 to 310 ppt with median sample concentrations ranging from 2.14 to 11.3 ppt. Results from targeted state monitoring data of PFHxS are also consistent with non-targeted state data. For example, California reported 29.2 percent of monitored systems found PFHxS, where concentrations ranged from 1.1 to 140.0 ppt. Therefore, in addition to the UCMR 3 results, these state data reflect PFHxS at frequencies and levels of public health concern. EPA also evaluated PFHxS in a national occurrence model that has been developed and utilized to estimate national-scale PFAS occurrence for four PFAS that were included in UCMR 3 (Cadwallader et al., 2022). The model and results are described in section VII.E of this preamble. Hundreds of systems serving millions of people were estimated to have mean concentrations exceeding the PFHxS HRL (9.0 ppt). Further supporting this preliminary determination, PFAS have dose additive impacts and PFHxS co-occurs in mixtures with other PFAS, including PFOA, PFOS, HFPO–DA, PFNA, and PFBS. More information on PFHxS co-occurrence is available in section VII.C. and VII.D. of this preamble.

2. HFPO–DA

The occurrence data presented above, throughout section VII of this preamble, and discussed in the USEPA (2023e) support the Agency's preliminary determination that there is a substantial likelihood HFPO–DA occur with a frequency and at levels of public health concern in drinking water systems across the United States. Through analysis of available non-targeted state data over half of the states in Tables 1 and 2 had state reported detections of HFPO–DA within 0.1 to 13.6 percent of their systems. State reported sample results were also reported above the HRL of 10.0 ppt with sample results ranging from 1.7 to 29.7 ppt and median sample results ranging from 1.7 to 9.7 ppt. Additionally, targeted state monitoring in North Carolina which conducted sampling across six finished drinking water sites where 438 samples showed HFPO–DA ranging from 9.2 to 1100 ppt, with a median concentration of 40 ppt. Therefore, these state data demonstrate concentrations of HFPO–DA at levels of public health concern. Further supporting this preliminary determination, PFAS have dose additive impacts and HFPO–DA occur in mixtures with other PFAS, including PFOA, PFOS, PFHxS, PFNA, and PFBS. More information on HFPO–DA co-occurrence is available in section VII.C. and VII.D. of this preamble.

3. PFNA

The occurrence data presented above, throughout section VII of this preamble, and discussed in USEPA (2023e) support the Agency's preliminary determination that there is a substantial likelihood PFNA occurs with a frequency and at levels of public health concern in drinking water systems across the United States. PFNA was found under UCMR 3 using an MRL of 20 ppt. Thus, all UCMR 3 reported detections are greater than the HRL of 10.0 ppt. Additionally, through analysis of available non-targeted state data all states except one in Tables 1 and 2 had state reported detections of PFNA within 0.2 to 13.3 percent of their systems, and state reported sample results ranging from 0.25 to 94.2 ppt with median sample results range from 2.1 to 7.46 ppt. Targeted state monitoring data of PFNA are also consistent with non-targeted state data; for example, Pennsylvania reported 5.8 percent of monitored systems found PFNA, where concentrations ranged from 1.8 to 18.1 ppt. Thus, in addition to the UCMR 3 results, these state data also reflect PFNA concentrations at levels of public health concern. Further supporting this preliminary

determination, PFAS have dose additive impacts and PFNA co-occurs in mixtures with other PFAS, including PFOA, PFOS, PFHxS, HFPO–DA, and PFBS. More information on PFNA co-occurrence is available in section VII.C. and VII.D. of this preamble.

4. PFBS

The occurrence data presented above, throughout section VII of this preamble, and discussed in USEPA (2023e) support the Agency's preliminary determination that there is a substantial likelihood PFBS occurs with a frequency and at levels of public health concern in drinking water systems across the United States. PFBS was found under UCMR 3 using an MRL of 90 ppt. Additionally, through analysis of available non-targeted state data all states except one in Tables 1 and 2 had state reported detections of PFBS within 2.4 to 56 percent of their systems, with four states finding PFBS in over 34 percent of their systems. Furthermore, PFBS occurred at a greater frequency in all but one state than the other three PFAS. State reported sample results ranged from 1 to 310 ppt with median sample results ranging from 1.99 to 7.26 ppt. Targeted state monitoring data of PFBS are consistent with non-targeted state data. Maryland reported 51.5 percent of monitored systems found PFBS, where concentrations ranged from 1.01 to 21.29 ppt. Further supporting this preliminary determination, PFAS have dose additive impacts and PFBS occurs in mixtures with other PFAS, including PFOA, PFOS, PFHxS, HFPO–DA, and PFNA. Moreover, given the considerable prevalence of PFBS in state data reviewed by EPA and frequency in which it has been shown to have other PFAS co-occurring with it, PFBS may serve as an indicator of broad contamination of other PFAS. Those other PFAS are also likely dose additive to PFBS and other PFAS being proposed for regulation. EPA notes that PFBS concentrations do not exceed their HRL of 2000 ppt when considered in isolation; however, when considering dose additivity and the elevated frequency to which PFBS occurrence has been observed over time, EPA has determined that PFBS is an important component of regulated PFAS mixtures and because of their pervasiveness, there is a substantial likelihood of its occurrence with a frequency and at levels of public health concern. More information on PFBS co-occurrence is available in section VII.C. and VII.D. of this preamble. Based on the occurrence and co-occurrence information above and throughout section VII of this preamble, EPA has preliminarily determined that there is substantial likelihood PFBS occurs with a considerable frequency and at levels of public health concern.

5. Preliminary Occurrence Determination for PFHxS, HFPO–DA, PFNA, and PFBS

Through the information presented within this section and in USEPA (2023e), along with the co-occurrence information presented in section VII.C. and VII.D. of this preamble, EPA's evaluation of the UCMR 3 data and state data collected more recently demonstrates that as analytical methods improved, monitoring has increased, and minimum reporting thresholds are lowered, there is a sustained upward trend that there is a substantial likelihood that these contaminants will occur and co-occur at a frequency and at levels of public health concern. The UCMR 3 results showed there were over 6.5 million people served by PWSs that had reported detections of PFHxS, PFNA, and PFBS, with many of the detections for PFHxS and PFNA above the HRLs. EPA's evaluation of monitoring data from multiple states that was primarily gathered following the UCMR 3 using improved analytical methods that could measure more PFAS at lower concentrations found that there is even greater demonstrated occurrence and co-occurrence of these PFAS, as well as for HFPO–DA, at significantly greater frequencies and at levels of public health concern. EPA anticipates that national monitoring with newer analytical methods capable of quantifying PFAS occurrence to lower levels, significant occurrence and co-occurrence of these PFAS are likely to be observed.

EPA notes that it focused the evaluation of the state data on the non-targeted monitoring efforts from 12 states, given that these types of monitoring efforts are likely to be more representative of PFHxS, HFPO–DA, PFNA, and PFBS occurrence as they are not specifically conducted in areas of known or potential contamination. In these 12 states, there were reported detections of PFHxS, HFPO–DA, PFNA, or PFBS, with nearly all states reporting detections of at least three of these four PFAS. EPA considered the targeted state data separately since a higher rate of detections may occur as a result of specifically looking in areas of suspected or known contamination. For the additional targeted state data that EPA analyzed, EPA also found that these states reported detections at systems serving millions of additional people, as well as at levels of public health concern, particularly when considering PFAS mixtures and dose additive impacts. State data detection frequency and concentration results vary for PFHxS, HFPO–DA, PFNA, and PFBS, both between these four different PFAS and across different states, with some states showing much higher reported detections and concentrations of these PFAS when compared to other states. However, given the overall results, this demonstrates the substantial likelihood that these PFAS and their mixtures will occur at frequencies and levels of public health concern, and where these PFAS have been monitored they are very commonly found. Furthermore, EPA notes that as described in section VII.C.1. of this preamble, when evaluating only a subset of the available state data representing non-targeted monitoring, that one or more of PFHxS, HFPO–DA, PFNA, and PFBS were reported in approximately 13.9 percent of monitored systems; if these results were extrapolated to the nation, one or more of these four PFAS would be detectable in over 9,000 PWSs. Moreover, as shown in section VII.C.2. of this preamble, PFHxS, HFPO–DA, PFNA, and PFBS generally co-occur with each other, as well as with PFOA and PFOS, supporting that there is substantial likelihood that these PFAS will co-occur in mixtures with dose additive impacts. For all of these reasons, EPA has determined that there is sufficient occurrence information available to support this preliminary determination that there is a substantial likelihood that PFHxS, HFPO–DA, PFNA, and PFBS will occur at frequencies and levels of public health concern.

D. Statutory Criterion 3—Meaningful Opportunity

EPA has preliminarily determined that regulation of PFHxS, HFPO–DA, PFNA, and PFBS, both individually and in a mixture, presents a meaningful opportunity for health risk reduction for persons served by PWSs. EPA has made this preliminary determination after evaluating health, occurrence, treatment, and other related information against the three SDWA statutory criteria including consideration of the following for the four PFAS and their mixtures:

- PFHxS, HFPO–DA, PFNA, and PFBS, individually and in a mixture, may cause adverse human health effects on several biological systems including the endocrine, cardiovascular, developmental, immune, and hepatic systems. Additionally, these four PFAS, as well as other PFAS, are likely to

produce dose-additive effects from co-exposures.

- The substantial likelihood that PFHxS, HFPO–DA, PFNA, and PFBS, individually occur and co-occur together at frequencies and levels of public health concern in PWSs as discussed in section III of this preamble above and in section VII of this preamble, and the corresponding significant populations served by these water systems.
- PFHxS, HFPO–DA, PFNA, and PFBS, individually and in a mixture, are expected to be environmentally persistent.
- Validated EPA-approved measurement methods are available to measure PFHxS, HFPO–DA, PFNA, and PFBS, individually and in mixtures. See section VIII of this preamble for further discussion.
- Treatment technologies are available to remove PFHxS, HFPO–DA, PFNA, and PFBS, and mixtures of these contaminants, from drinking water. See section XI of this preamble for further discussion.
- Regulating PFHxS, HFPO–DA, PFNA, and PFBS, in addition to PFOA and PFOS, is anticipated to reduce the overall public health risk from all other PFAS that co-occur and are co-removed. Their regulation is anticipated to provide public health protection at the majority of known sites with PFAS-impacted drinking water.
- There are achievable steps to manage drinking water that can be taken to reduce risk.

Due to the environmental persistence of these chemicals, there is potential for toxicity at environmentally relevant concentrations as studies show it can take years for many PFAS to leave the human body (NIEHS, 2020). See section III of this preamble above and section V of this preamble for discussion about the human health effects of PFHxS, HFPO–DA, PFNA, and PFBS.

Data from both the UCMR 3 and state monitoring efforts demonstrates occurrence or likely occurrence and co-occurrence of PFHxS, HFPO–DA, PFNA, and PFBS, and their mixtures, at frequencies and levels of public health concern. Under UCMR 3, 1.4% of systems serving approximately 6.7 million people had reported detections (greater than or equal to their MRLs) of PFHxS, PFNA, and PFBS of at least one of the three compounds. Additionally, based on the available state monitoring data presented earlier in this section, in the 11 states shown in Table 2 that conducted non-targeted sampling of the four PFAS, monitored systems that reported detections of PFHxS, HFPO–DA, PFNA, and PFBS serve approximate populations of 8.3 million, 1.8 million, 2.6 million, and 8.8 million people, respectively. Further, as demonstrated in the UCMR 3 and state data, concentrations of these PFAS, as well as PFOA and PFOS, and their mixtures co-occur at levels of public health concern as described in more detail in section VII.C. and VII.D. of this preamble and USEPA (2023e).

Analytical methods are available to measure PFHxS, HFPO–DA, PFNA, and PFBS in drinking water. EPA has published two multi-laboratory validated drinking water methods for individually measuring PFHxS, HFPO–DA, PFNA, and PFBS: EPA Method 537.1 which measures 18 PFAS and EPA Method 533 which measures 25 PFAS. There are 14 PFAS which overlap between methods and both methods measure PFOA and PFOS). Additional discussion on analytical methods can be found in section VIII of this preamble.

EPA's analysis, summarized in section XI of this preamble, found there are available technologies capable of reducing PFHxS, HFPO–DA, PFNA, and PFBS. These technologies include granular activated carbon (GAC), AIX resins, reverse osmosis (RO), and nanofiltration (NF). See discussion in section XI of this preamble for information about these treatment technologies. Due to the inherent nature of sorptive and high-pressure membrane technologies such as these, treatment technologies that remove PFHxS, HFPO–DA, PFNA, and PFBS and their mixtures also have been documented to co-remove other PFAS (Sörengård et al., 2020; McCleaf et al., 2017; Mastropietro et al., 2021). Furthermore, as described in section VII of this preamble, PFHxS, HFPO–DA, PFNA, and PFBS also co-occur with PFAS for which the Agency is not currently making a preliminary regulatory determination. Many of these other emergent co-occurring PFAS are likely to also pose hazards to public health and the environment (Mahoney et al., 2022). Therefore, based on EPA's findings that PFHxS, HFPO–DA, PFNA, and PFBS have a substantial likelihood to co-occur in drinking water with other PFAS and treating for PFHxS, HFPO–DA, PFNA, and PFBS is anticipated to result in removing these and other PFAS, regulation of PFHxS, HFPO–DA, PFNA, PFBS (as well as PFOA and PFOS) also presents a meaningful opportunity to reduce the overall public health risk from all other PFAS that co-occur and are co-removed with PFHxS, HFPO–DA, PFNA, and PFBS.

With the ability to monitor for PFAS, identify contaminated drinking water sources and contaminated finished drinking water, and reduce PFAS exposure through management of drinking water, EPA has identified meaningful and achievable actions that can be taken to reduce the human health risk of PFAS.

EPA is preliminarily determining that regulation of PFHxS, HFPO–DA, PFNA, and PFBS presents a meaningful opportunity for health risk reduction for persons served by PWSs.

E. EPA's Preliminary Regulatory Determination Summary for PFHxS, HFPO–DA, PFNA, and PFBS

The statute provides EPA significant discretion when making a preliminary determination under Section 1412(b)(1)(A). This decision to make a preliminary regulatory determination for PFHxS, HFPO–DA, PFNA and PFBS and their mixtures is based on consideration of the evidence supporting the factors individually and as a whole.

EPA's preliminary determination that PFHxS, HFPO–DA, PFNA, and PFBS ''may have an adverse effect on the health of persons'' is strongly supported by numerous studies where multiple health effects are demonstrated following exposure. EPA's preliminary determination regarding occurrence is supported by evidence documenting the trend demonstrated first by the UCMR 3 data and then subsequent state occurrence data that measured occurrence of the four PFAS has increased with more widespread monitoring primarily using EPA approved methods that have, lower reporting thresholds. The statute contemplates that there may be instances where exact occurrence may not be ''known'' and in these instances EPA need only demonstrate that that it has a basis to determine that there is a ''substantial likelihood that the contaminant will occur.'' Additional nationwide monitoring data will be conducted between 2023–2025 under the UCMR 5. This data will serve to demonstrate whether the four PFAS are known to occur, however, EPA has sufficient evidence now to support a preliminary determination there is a substantial likelihood that these PFAS will occur frequently and at concentrations where they are likely to exceed their respective HRLs based on the increased occurrence trends documented by available information. This finding is further supported by available dose additive impacts and co-occurrence information that demonstrates that there is a substantial likelihood that these PFAS co-occur in PWSs with a frequency and at levels of public health concern at hundreds of systems serving millions of people.

Finally, EPA's preliminary determination that regulating these four PFAS presents a meaningful opportunity for health risks reductions is strongly supported by numerous bases, including the potential adverse human health effects and potential for exposure and co-exposure of these PFAS, and the availability of both analytical methods to measure and treatment technologies to remove these contaminants in drinking water.

After considering these factors individually and together, EPA has preliminarily determined that now is the appropriate time to exercise its discretion under the statute to regulate the four PFAS and their mixtures as contaminants under SDWA. EPA recognizes the public health burden of PFHxS, HFPO–DA, PFNA, and PFBS, as well as PFOA, PFOS, and other PFAS, a public urgency to reduce PFAS concentrations in drinking water, and that the proposed regulation provides a mechanism to reduce these PFAS expeditiously and efficiently for regulated utilities, States, and Tribes. Furthermore, in addition to making this preliminary regulatory determination, EPA is concurrently proposing an NPDWR to include all four of these PFAS, in part to allow utilities to consider these PFAS specifically as they design systems to remove PFAS and to ensure that they are reducing these PFAS in their drinking water as effectively and quickly as feasible, maximizing the protection of drinking water for the American public.

F. Request for Comment on EPA's Preliminary Regulatory Determination for PFHxS, HFPO–DA, PFNA, and PFBS

EPA specifically requests comment on its preliminary regulatory determination for PFHxS, HFPO–DA, PFNA, and PFBS and their mixtures. In particular, EPA requests comment on whether there is additional health information the Agency should consider as to whether PFHxS, HFPO–DA, PFNA, and PFBS and their mixtures may have an adverse effect on the health of persons. EPA also requests comment on whether there are other peer-reviewed health or toxicity assessments for other PFAS the Agency should consider as part of this action. Additionally, EPA requests comment on additional occurrence data the Agency should consider regarding its decision that PFHxS, HFPO–DA, PFNA, and PFBS and their mixtures occur or are substantially likely to occur in PWSs with a frequency and at levels of public health concern. EPA also requests public comment on its evaluation that regulation of PFHxS, HFPO–DA, PFNA, and PFBS and their mixtures, in addition to PFOA and PFOS, will provide protection from PFAS that will not be regulated as part of this proposed PFAS NPDWR.

IV. Approaches to MCLG Derivation

Section 1412(a)(3) of the SDWA requires the Administrator of the EPA to propose a MCLG simultaneously with the NPDWR. The MCLG is set, as defined in Section 1412(b)(4)(A), at ''the level at which no known or anticipated adverse effects on the health of persons occur and which allows an adequate margin of safety''. Consistent with SDWA 1412(b)(3)(C)(i)(V), in developing the MCLG, EPA considers ''the effects of the contaminant on the general population and on groups within the general population such as infants, children, pregnant women, the elderly, individuals with a history of serious illness, or other subpopulations that are identified as likely to be at greater risk of adverse health effects due to exposure to contaminants in drinking water than the general population.'' Other factors considered in determining MCLGs include health effects data on drinking water contaminants and potential sources of exposure other than drinking water. MCLGs are not regulatory levels and are not enforceable.

EPA is proposing individual MCLGs for two PFAS (PFOA and PFOS; see USEPA, 2023b; USEPA, 2023c) and a separate MCLG to account for dose additive noncancer effects for a mixture of four PFAS (PFHxS, HFPO–DA, PFNA, and PFBS; see USEPA, 2023d). The derivation of the proposed MCLG for the mixture is based on an HI approach (USEPA, 2023a).

The SAB, discussed further in section XV.K.1. of this preamble below, supported many of EPA's conclusions presented in the PFOA and PFOS MCLG approaches, mixtures framework, and economics benefits documents including health effects and economic benefits analyses (USEPA, 2022a). Regarding the Proposed Approaches to the Derivation of Draft MCLGs for PFOA and PFOS (USEPA, 2021e; USEPA, 2021f), SAB agreed with the selection of the UFs used in deriving the noncancer RfDs, supported the selection of an RSC of 20%, and agreed with the ''likely'' designation for PFOA carcinogenicity.

The SAB commented that EPA should ''focus on those health outcomes that have been concluded to have the strongest evidence'' and ''consider multiple human and animal studies for a variety of endpoints in different populations so as to provide convergent evidence that is more reliable than any single study or health endpoint in isolation.'' EPA applied these recommendations when deriving points of departure and selecting critical studies used for toxicity value development in the MCLG documents for PFOA and PFOS (USEPA, 2023b; USEPA, 2023c). Specifically, EPA focused on the five health outcomes with the strongest weight of evidence—liver, immune, cardiovascular, developmental, and cancer—during quantitative analyses.

However, the SAB had a number of consensus recommendations and identified ''methodological concerns in the draft MCLG documents for PFOA and PFOS.'' EPA has addressed these concerns by providing additional clarity and transparency on the systematic literature review process and expanding the systematic review steps included in the health effects assessment. The systematic review protocols, which were developed to be consistent with EPA's Office of Research and Development (ORD) Integrated Risk Information System (IRIS) Staff Handbook (USEPA, 2022f), are available in the Appendices of the MCLG documents for PFOA and PFOS (USEPA, 2023b; USEPA, 2023c). In order to base the MCLG derivation on the best available science, EPA has updated the draft MCLG documents to reflect the results of conducting an update to the literature search and performing new evaluations of models, methods, and data. More information is available in section XV.K.1. of this preamble.

EPA expects to conduct a final literature search update before the final rule is promulgated. The SAB input has made this product more scientifically sound and ensures that it reflects the best available science. The updated supporting information can be found in the MCLG documents for PFOA and PFOS (USEPA, 2023b; USEPA, 2023c).

A. Approach to MCLG Derivation for Individual PFAS

To establish the MCLG, EPA assesses the peer reviewed science examining cancer and noncancer health effects associated with oral exposure to the contaminant. For linear carcinogenic contaminants, where there is a proportional relationship between dose and carcinogenicity at low concentrations, EPA has a long-standing practice of establishing the MCLG at zero (see USEPA, 1998a; USEPA, 2000d; USEPA, 2001). For nonlinear carcinogenic contaminants, contaminants that are suggestive carcinogens, and non-carcinogenic contaminants, EPA typically establishes the MCLG based on an RfD. An RfD is an estimate of a daily exposure to the

human population (including sensitive populations) that is likely to be without an appreciable risk of deleterious effects during a lifetime. A nonlinear carcinogen is a chemical agent for which the associated cancer response does not increase in direct proportion to the exposure level and for which there is scientific evidence demonstrating a threshold level of exposure below which there is no appreciable cancer risk.

The MCLG is derived depending on the noncancer and cancer evidence for a particular contaminant. Establishing the MCLG for a chemical has historically been accomplished in one of three ways depending upon a three-category classification approach (USEPA, 1985; USEPA, 1991a). The categories are based on the available evidence of carcinogenicity after exposure via ingestion. The starting point in categorizing a chemical is through assigning a cancer descriptor using EPA's current *Guidelines for Carcinogen Risk Assessment* (USEPA, 2005). The 2005 Guidelines replaced the prior alphanumeric groupings although the basis for the classifications is similar. In prior rulemakings, the Agency typically placed Group A, B1, and B2 contaminants into Category I, Group C into Category II, and Group D and E into Category III based on the Agency's previous cancer classification guidelines (*i.e., Guidelines for Carcinogen Risk Assessment,* published in 51 FR 33992, September 24, 1986 (USEPA, 1986b) and the 1999 draft revised final guidelines (USEPA, 1999):

- Category I chemicals have ''strong evidence [of carcinogenicity] considering weight of evidence, pharmacokinetics, and exposure'' (USEPA, 1985; USEPA, 1991a). EPA's 2005 Cancer descriptors associated with this category are: ''Carcinogenic to Humans'' or ''Likely to be Carcinogenic to Humans'' (USEPA, 2005). EPA's policy under SDWA is to set MCLGs for Category I chemicals at zero, based on the principle that there is no known threshold for carcinogenicity (USEPA, 1985; USEPA, 1991a; USEPA, 2016d). In cases when there is sufficient evidence to determine a nonlinear cancer mode of action (MOA), the MCLG is based on the RfD approach described below.
- Category II chemicals have ''limited evidence [of carcinogenicity] considering weight of evidence, pharmacokinetics, and exposure'' (USEPA, 1985; USEPA, 1991a). EPA's 2005 Cancer descriptor associated with this category is: ''Suggestive Evidence of Carcinogenic Potential'' (USEPA, 2005). The MCLG for Category II contaminants is based on noncancer effects (USEPA, 1985; USEPA, 1991a) as described below.
- Category III chemicals have ''inadequate or no animal evidence [of carcinogenicity]'' (USEPA, 1985; USEPA, 1991a). EPA's 2005 Cancer descriptors associated with this category are: ''Inadequate Information to Assess Carcinogenic Potential'' and ''Not Likely to Be Carcinogenic to Humans'' (USEPA, 2005). The MCLG for Category III contaminants is based on noncancer effects as described below.

For chemicals exhibiting a noncancer threshold for toxic effects (*e.g.,* Category II or III; *e.g.,* see USEPA, 1985 and USEPA, 1991a) and nonlinear carcinogens (*e.g.,* see USEPA, 2006a), EPA establishes the MCLG based on a toxicity value, typically an RfD, but similar toxicity values may also be used when they represent the best available science (*e.g.,* ATSDR Minimal Risk Level). A noncancer MCLG is designed to be protective of noncancer effects over a lifetime of exposure with an adequate margin of safety, including for sensitive populations and life stages, consistent with SDWA 1412(b)(3)(C)(i)(V) and 1412(b)(4)(A). The calculation of a noncancer MCLG includes an oral toxicity reference value such as an RfD (or Minimal Risk Level), DWI–BW, and RSC as presented in the equation below:

$$\boldsymbol{MCLG} = \left(\frac{Oral\ RfD}{DWI\text{-}BW}\right) * RSC$$

Where:

RfD [3] = reference dose—an estimate (with uncertainty spanning perhaps an order of magnitude) of a daily oral exposure of the human population to a substance that is likely to be without an appreciable risk of deleterious effects during a lifetime. The RfD is equal to a point-of-departure (POD) divided by a composite UF.

DWI–BW = An exposure factor in the form of the 90th percentile DWI–BW for the identified population or life stage, in units of liters of water consumed per kilogram BW per day (L/kg/day). The DWI–BW considers both direct and indirect consumption of drinking water (indirect water consumption encompasses water added in the preparation of foods or beverages, such as tea or coffee). Chapter 3 of EPA's *Exposure Factors Handbook* (USEPA, 2019a) provides DWI–BWs for various populations or life stages within the general population for which there are publicly available, peer-reviewed data such as National Health and Nutrition Examination Survey (NHANES) data.

RSC = relative source contribution—the percentage of the total exposure attributed to drinking water sources (USEPA, 2000c), with the remainder of the exposure allocated to all other routes or sources.

EPA established internal protocols for the systematic review steps of literature search, Population, Exposure, Comparator, and Outcomes (PECO) development, literature screening, study quality evaluation, and data extraction prior to conducting the systematic review for PFOA and PFOS. However, EPA recognizes that while components of the protocols were included in the November 2021 draft Proposed Approaches documents (USEPA, 2021e; USEPA, 2021f), the protocols were only partially described in those documents. EPA has incorporated detailed, transparent, and complete protocols for all steps of the systematic review process into the Proposed MCLG documents (USEPA, 2023b; USEPA, 2023c). Additionally, the protocols and methods have been updated and expanded based on SAB recommendations to improve the transparency of the process used to derive the MCLGs for PFOA and PFOS and to be consistent with the *ORD Staff Handbook for Developing IRIS Assessments* (USEPA, 2022f). For additional details of EPA's systematic review methods, see USEPA (2023b, 2023c; Chapter 2 and Appendix A).

EPA evaluated strengths and limitations of each study to determine an overall classification of *high, medium, low,* or *uninformative* with respect to confidence in the quality and reliability of the study (this was done for each endpoint evaluated in each study). *High, medium,* and *low* confidence studies were prioritized for qualitative assessments, while only *high* and *medium* confidence studies were prioritized for quantitative assessments. Within each health outcome, the evidence from epidemiology and animal toxicity studies was synthesized. For noncancer health outcomes, the animal toxicological and epidemiological evidence for each health outcome was classified as either *robust, moderate, slight, indeterminate, or compelling evidence of no effect.* The weight of evidence for each health outcome across all available evidence (*i.e.,* epidemiology, animal toxicity, and mechanistic studies) was classified as either *evidence demonstrates, evidence indicates (likely), evidence suggests, evidence inadequate, or strong evidence supports no effect.* To characterize the weight of evidence for cancer effects,

[3] A reference dose (RfD) is an estimate of the amount of a chemical a person can ingest daily over a lifetime (chronic RfD) or less (subchronic RfD) that is unlikely to lead to adverse health effects in humans.

EPA followed recommendations of the *Guidelines for Carcinogen Risk Assessment* (USEPA, 2005). Further description of the methods used to make these determinations for PFOA and PFOS is provided in USEPA (2023b; 2023c). Consistent with the recommendations of the SAB and to ensure that the rule reflects the best available science, EPA continues to evaluate the literature using systematic review methods.

The approach to select the DWI–BW and RSC for MCLG derivation includes a step to identify sensitive population(s) or life stage(s) (*i.e.,* populations or life stages that may be more susceptible or sensitive to a chemical exposure) by considering the available data for the contaminant, including the adverse health effects reported in the toxicity study on which the RfD was based (known as the critical effect within the critical or principal study). Although data gaps can complicate identification of the most sensitive population (*e.g.,* not all windows or life stages of exposure or health outcomes may have been assessed in available studies), the critical effect and POD that form the basis for the RfD (or Minimal Risk Level) can provide some information about sensitive populations because the critical effect is typically observed within the low dose range among the available data. Evaluation of the critical study, including the exposure window or interval, may identify a sensitive population or life stage (*e.g.,* pregnant women, formula-fed infants, lactating women). In such cases, EPA can select the corresponding DWI–BW for that sensitive population or life stage from the *Exposure Factors Handbook* (USEPA, 2019a) to derive the MCLG. In the absence of information indicating a sensitive population or life stage, the DWI–BW corresponding to the general population may be selected for use in MCLG derivation.

To account for potential aggregate risk from exposures and exposure pathways other than oral ingestion of drinking water, EPA applies an RSC when calculating MCLGs to ensure that total exposure to a contaminant does not exceed the daily exposure associated with the toxicity value, consistent with USEPA (2000c) and long-standing EPA methodology for establishing drinking water MCLGs and NPDWRs. The RSC represents the proportion of an individual's total exposure to a contaminant that is attributed to drinking water ingestion (directly or indirectly in beverages like coffee, tea, or soup, as well as from transfer to dietary items prepared with drinking water) relative to other exposure pathways. The remainder of the exposure equal to the RfD (or Minimal Risk Level) is allocated to other potential exposure sources (USEPA, 2000c). The purpose of the RSC is to ensure that the level of a contaminant (*e.g.,* MCLG), when combined with other identified potential sources of exposure for the population of concern, will not result in exposures that exceed the RfD (or Minimal Risk Level) (USEPA, 2000c).

To determine the RSC, EPA follows the Exposure Decision Tree for Defining Proposed RfD (or POD/UF) Apportionment in EPA's *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health* (USEPA, 2000c). EPA considers whether there are significant known or potential uses/sources of the contaminant other than drinking water, the adequacy of data and strength of evidence available for each relevant exposure medium and pathway, and whether adequate information on each exposure source is available to quantitatively characterize the exposure profile. The RSC is developed to reflect the exposure to the general population or a sensitive population within the general population. When exposure data are available for multiple sensitive populations or life stages, the most health-protective RSC is selected. In the absence of adequate data to quantitatively characterize exposure to a contaminant, EPA typically selects an RSC of 20 percent (0.2). When scientific data demonstrating that sources and routes of exposure other than drinking water are not anticipated for a specific pollutant, the RSC can be raised as high as 80 percent based on the available data, thereby allocating the remaining 20 percent to other potential exposure sources (USEPA, 2000c).

B. Approach to MCLG Derivation for a PFAS Mixture

There has been a lot of work evaluating parameters that best inform the combining of PFAS components identified in environmental matrices into mixtures analyses. Indeed, there is currently no consensus on whether or how PFAS should be combined for risk assessment purposes. EPA considered several approaches to account for dose additive noncancer effects associated with PFHxS, HFPO–DA, PFNA, and PFBS in mixtures. PFAS can affect multiple human health endpoints and differ in their impact (*i.e.,* potency of effect) on target organs/systems. PFAS disrupt signaling of multiple biological pathways resulting in common adverse effects on several biological systems and functions, including thyroid hormone levels, lipid synthesis and metabolism, development, and immune and liver function (ATSDR, 2021; EFSA, 2018, 2020; EPA, 2023d). For example, one PFAS may be most toxic to the liver, and another may be most toxic to the thyroid but both chemicals affect the liver and the thyroid. Other chemicals regulated as groups operate through a common MOA and predominately affect one human health endpoint. This supports a flexible data-driven approach that facilitates the evaluation of multiple health endpoints, such as the HI.

EPA is proposing to establish an MCLG for a mixture of chemicals that are expected to impact multiple endpoints. SDWA requires the agency to establish a health-based MCLG set at, ''a level at which no known or anticipated adverse effects on the health of persons occur and which allow for an adequate margin of safety. EPA's SAB opined that where the health endpoints of the chosen compounds are similar, ''the HI methodology is a reasonable approach for estimating the potential aggregate health hazards associated with the occurrence of chemical mixtures in environmental media. The HI is an approach based on dose additivity (DA) that has been validated and used by EPA'' (USEPA, 2022a). This proposal is based on the Agency's finding that the general HI approach is the most efficient and effective approach for establishing an MCLG for PFAS mixtures consistent with the statutory requirement described above. This finding is based on the level of protection afforded by both the HBWCs for the individual PFAS as components of a mixture and the resulting HI itself, which provides an added margin of safety with respect to potential health hazards of mixtures of these PFAS. An HI greater than 1.0 is generally regarded as an indicator of potential adverse health risks associated with exposure to the mixture (USEPA, 1986a; USEPA, 1991b; USEPA, 2000a). A HI less than or equal to 1.0 is generally regarded as having no appreciable risk (USEPA, 1986a; USEPA, 1991b; USEPA, 2000a). The proposed MCLG is based on using this HI of 1.0, and the HBWCs of each mixture component, which in turn is based on its respective health-based reference value (RfV; RfD or MRL). Because the RfV represents an estimate at which no appreciable risk of deleterious effects exists (USEPA, 1986a, 1991a, 2000a), the use of the HBWCs means that the HI of 1.0 will ensure that there are no known or anticipated effects on the health of persons and allow for an adequate

margin of safety. In addition, the resulting HI adds an additional margin of safety for mixtures of the four PFAS, to address the potential for additive toxicity where the contaminants co-occur and the HBWCs for the individual components are less than 1.0. The Agency therefore proposes the general HI approach as the basis for the MCLG, and because treatment to this level is also feasible, the MCL for these PFAS, (see additional discussion in section VI of this preamble) and welcomes public comment on its findings.

EPA considered the two main types of HI approaches: (1) the general HI which allows for component chemicals in the mixture to have different health effects or endpoints as the basis for the component chemical reference values (*e.g.,* RfDs), and (2) the target-organ specific HI which relies on reference values based on the same organ or organ system (*e.g.,* liver-, thyroid-, or developmental-specific). The general HI approach is based on the overall RfD which is protective of all effects for a given chemical, and thus is a more health protective indicator of risk. The target-organ specific HI approach produces a less health protective estimate of risk than the general HI when a contaminant impacts multiple organs because the range of potential effects has been scoped to a specific target organ, which may be one of the less potent effects or for which there may be significant currently unquantified effects. Additionally, a target-organ specific HI approach relies on toxicity values aggregated by the ''same'' target organ endpoint/effect, and the absence of information about a specific endpoint may result in the contaminant not being adequately considered in a target-organ specific approach, and thus, underestimating potential health risk. A target-organ specific HI can only be performed for those PFAS for which a health effect specific RfD is calculated. For example, for some PFAS a given health effect might be poorly characterized or not studied at all, or, as a function of dose may be one of the less(er) potent effects in the profile of toxicity for that particular PFAS. Another limitation is that so many PFAS lack human epidemiological or experimental animal hazard and dose-response information across a broad(er) effect range thus limiting derivation of target-organ specific values. A similar, effect/endpoint-specific method called the relative potency factor (RPF) approach, which represents the relative difference in potency of an effect/endpoint between an index chemical and other members of the mixture, was also considered. (Further background on all of these approaches, plus illustrative examples, and a discussion of the advantages and challenges associated with each approach can be found in Section 5 and 6 in USEPA, 2023d).

EPA also considered setting individual MCLGs instead of and in addition to using a mixtures-based approach for PFHxS, HFPO–DA, PFNA, and/or PFBS in mixtures. EPA ultimately selected the general HI approach for establishing an MCLG for these four PFAS, as described in greater detail below, because it provides the most health protective endpoint for multiple PFAS in a mixture to ensure there would be no known or anticipated adverse effects on the health of persons. EPA also considered a target-specific HI or RPF approach but, because of information gaps, EPA may not be able to ensure that the MCLG is sufficiently health protective. If the Agency only established an individual MCLG, the Agency would not provide any protection against dose-additivity from regulated co-occurring PFAS. EPA is seeking comments on the merits and drawbacks of each of the approaches described above. As discussed later in this proposal, EPA is also seeking comment on whether to set MCLGs for the individual PFAS in addition to or instead of setting them for the mixture.

EPA is proposing use of the general HI approach. Although EPA's SAB opined that it is reasonable to use a HI for evaluation of mixtures of PFAS in drinking water for situations where the profile of health effects of the chosen compounds share similarity in one or more effect domains, the SAB emphasized that using a HI in the context of developing regulations for PFAS should not be directly interpreted as a quantitative estimate of mixture risk. Rather the SAB agreed that the HI can be used as an indicator of potential health risk(s) associated with exposure to mixtures of PFAS; see discussion in USEPA (2023d) and Section V of this preamble for further information. EPA addresses the full range of responses to SAB comments in a response to comment document; that document is included in the docket for this action (USEPA, 2023f).

EPA proposes that the general HI is the most appropriate and justified approach for considering PFAS mixtures in this rulemaking because of the level of protection afforded for the evaluation of chemicals with diverse (but in many cases shared) health endpoints. SDWA requires the agency to establish a MCLG set at, ''a level at which no known or anticipated adverse effects on the health of persons occur and which allow for an adequate margin of safety.'' In this context, EPA has made a reasonable policy choice for regulating a mixture of chemicals that are expected to adversely impact multiple health endpoints. Because mixture component chemical HBWCs are based on overall lowest RfDs across candidate critical effects, the approach is protective against all health effects across component chemicals and therefore meets the statutory requirements of establishing an MCLG under SDWA. Basing the mixture MCLG on overall RfDs ensures that there are no known or anticipated effects, and using the HI adds an appropriate margin of safety for a class of contaminants that have been shown to co-occur and evidence suggests that they may have dose additive toxicity. Conversely, by definition, a target-organ specific (*e.g.,* liver-, thyroid-, or developmental-specific) HI or RPF approach would not be protective of all health effects across the four PFAS proposed for regulation with the mixture MCLG.

Use of the general HI approach over the target-organ specific HI for these four PFAS is supported by EPA guidance (EPA, 2000a) and available health assessments and toxicity values (overall RfDs). Target-organ specific reference values and RPFs are not currently available for HFPO–DA, PFBS, PFHxS, and PFNA.

EPA's protocol for MCLG development for the mixture of PFHxS, HFPO–DA, PFNA, and PFBS follows existing Agency guidance, policies, and procedures related to the three key inputs (*i.e.,* RfD/Minimal Risk Level, DWI–BW, and RSC) and longstanding Agency mixtures guidance (USEPA, 1986a; USEPA, 2000a) to address dose additive health effects. First, EPA identifies or derives a HBWC, calculated using the MCLG equation above, for each of the four individual PFAS in the mixture. More information on HBWCs for PFHxS, HFPO–DA, PFNA, and PFBS is available in section III.B of this preamble. Peer reviewed, publicly available assessments for PFHxS (ATSDR, 2021), HFPO–DA (USEPA, 2021b), PFNA (ATSDR, 2021), and PFBS (USEPA, 2021a) provide the chronic reference values (RfD, adjusted Minimal Risk Level) used to calculate the HBWCs for these four PFAS. The DWI–BW and RSC for each of the four PFAS are determined as described using the processes described for individual PFAS (Section IV.A of this preamble). Briefly, the DWI–BW for each of the four PFAS is selected from the EPA *Exposure Factors Handbook* (USEPA, 2019a), taking into account the relevant

sensitive population(s) or life stage(s). RSCs are determined based on a literature review of potential exposure sources of the four PFAS and using the Exposure Decision Tree approach (USEPA, 2000c).

The HI is based on an assumption of dose addition (DA) among the mixture components (Svendsgaard and Hertzberg, 1994; USEPA, 2000a). An important aspect of the proposed 'general HI' approach is that it is based on the availability of a reference value regardless of the critical effect for each mixture component. Unlike a target-organ specific Hazard Index which is typically based on either shared mode-of-action or shared health outcome of mixture components, the general HI is based on a non-cancer reference value (RfD or Minimal Risk Level) for the critical (usually the most sensitive) effect of each component (USEPA, 2000a; USEPA, 1989). Importantly, while many PFAS share some common target organs/health outcomes such as liver toxicity, the potency—and in some cases, even the overall most sensitive target organ—differs among PFAS. As an example, the most sensitive organ to HFPO–DA is the liver while the most sensitive organ to PFBS is the thyroid. Integrating the overall RfDs for each mixture PFAS in the calculation of component HQs and a corresponding mixture HI, regardless of the critical (most sensitive) effect, ensures health protection under an assumption of dose additivity. The alternative may underestimate potential health risk(s) associated with exposure to a PFAS mixture as a given effect-specific HI might entail the use of target-organ specific reference values that are not protective of effects at a given mixture component's corresponding overall RfD. Further, effect-specific RfDs are not typically derived for chemicals beyond the critical effect for the overall RfD which might prohibit the inclusion of a chemical in a target-organ specific HI. Recognizing the various nuances to the HI approach, EPA welcomes public comment.

In the HI approach, an HQ is calculated as the ratio of human exposure (E) to a health-based reference value (RfV) for each mixture component chemical (i) (USEPA, 1986a). The HI involves the use of RfVs for each PFAS mixture component (in this case, PFHxS, HFPO–DA, PFNA, and PFBS), which have been selected based on sensitive health outcomes that are protective of all other adverse health effects observed after exposure to the individual PFAS. Thus, this approach, which protects against all adverse effects, not only a single adverse outcome/effect (*e.g.,* as would be the case using other mixture approaches such as the target-organ specific HI or RPF approach), is a health protective risk indicator and appropriate for MCLG development. The HI is unitless; in the HI formula, E and the RfV must be in the same units. For example, if E is the oral intake rate (mg/kg/day), then the RfV could be the RfD or Minimal Risk Level, which have the same units. Alternatively, the exposure metric can be a media-specific metric such as a measured water concentration (*e.g.,* nanograms per liter or ng/L) and the RfV can be an HBWC (*e.g.,* ng/L). The component chemical HQs are then summed across the mixture to yield the HI. A mixture HI exceeding 1.0 indicates that the exposure metric is greater than the toxicity metric and there is potential concern for a given environmental medium or site, in this case, drinking water served to consumers from a PWS. The HI provides an indication of: (1) concern for the overall mixture and (2) potential driver PFAS (*i.e.,* those PFAS with high[er] HQs). The HI accounts for differences in toxicity among the mixture component chemicals rather than weighting them all equally. For a detailed discussion of PFAS dose additivity and the HI approach, see the PFAS Mixtures Framework (USEPA, 2023d). The HI is calculated through the following equation:

$$HI = \sum_{i=1}^{n} HQ_i = \sum_{i=1}^{n} \frac{E_i}{RfV_i}$$

Where:

HI = Hazard Index

HQ_i = Hazard Quotient for chemical i

E_i = Exposure, *i.e.,* dose (mg/kg/day) or occurrence concentration, such as in drinking water (mg/L), for chemical i

RfV_i = Reference value (*e.g.,* oral RfD or Minimal Risk Level) [mg/kg/day], or corresponding HBWC; *e.g.,* such as an MCLG for chemical i (in milligrams per liter or mg/L)

V. Maximum Contaminant Level Goals

A. PFOA

1. Carcinogenicity Assessment and Cancer Slope Factor (CSF) Derivation

a. Summary of Cancer Health Effects

The carcinogenicity of PFOA has been observed in both human epidemiological and animal toxicity studies. The evidence in high and medium confidence epidemiological studies is primarily based on the incidence of kidney and testicular cancer, as well as some medium quality studies providing limited evidence of breast cancer associated with exposure to PFOA. Other cancer types have been observed in human studies, although the evidence for these is largely from low confidence studies. The evidence of carcinogenicity in animal models was observed in three medium or high quality chronic oral animal studies in adult Sprague-Dawley rats which identified neoplastic lesions in the liver, pancreas, and testes after PFOA exposure.

Since publication of the 2016 PFOA Health Effects Support Document (HESD) (USEPA, 2016e), the evidence supporting the carcinogenicity of PFOA has been strengthened by additional published studies. In particular, the evidence of kidney cancer from highly exposed community studies (Vieira et al., 2013; Barry et al., 2013) is now supported by new evidence of renal cell carcinoma (RCC) from a nested case-control study in the general population (Shearer et al., 2021). In animal models, the evidence of multi-site tumorigenesis reported in two chronic bioassays in rats (Butenhoff et al., 2012a; Biegel et al., 2001) is now supported by new evidence from a third chronic bioassay in rats that also reports multi-site tumorigenesis (NTP, 2020).

The available evidence indicates that PFOA has carcinogenic potential in humans and at least one animal species. A plausible, though not definitively causal, association between human exposure to PFOA and kidney and testicular cancers in the general population and highly exposed populations is supported by the available evidence. As stated in the *Guidelines for Carcinogen Risk Assessment* (USEPA, 2005), ''an inference of causality is strengthened when a pattern of elevated risks is observed across several independent studies.'' Two medium confidence studies in independent populations provide evidence of an association between elevated PFOA serum concentrations and kidney cancer (Shearer et al., 2021; Vieira et al., 2013), while two studies from the same cohort provide evidence of an association between testicular cancer and elevated PFOA serum concentrations (Vieira et al., 2013; Barry et al., 2013). A recent National Academies of Science, Engineering, and Mathematics report on PFAS similarly ''concluded that there is sufficient evidence for an association between PFAS and kidney cancer'' (NASEM, 2022). The evidence of carcinogenicity in animals is from three studies in rats of the same strain. The results from these studies provide evidence of increased incidence of three tumor types (Leydig cell tumors (LCTs), pancreatic acinar cell tumors (PACTs),

and hepatocellular adenomas) in males administered diets dosed with PFOA. Importantly, site concordance is not always assumed between humans and animal models; agents observed to produce tumors may do so at the same or different sites in humans and animals, as appears to be the case for PFOA (USEPA, 2005).

b. CSF Derivation

When a chemical is a linear carcinogen, a value that numerically describes the relationship between the dose of a chemical and the risk of cancer, is calculated. This is known as a cancer slope factor (CSF). The CSF is the cancer risk (*i.e.,* proportion affected) per unit of dose (USEPA, 2005). In addition to reevaluating the CSF previously derived and described in the 2016 HESD (USEPA, 2016e) based on LCTs in male rats observed by Butenhoff et al. (2012a), EPA derived CSFs for combined hepatocellular adenomas and carcinomas and pancreatic acinar cell adenomas in male rats observed by NTP (2020) and kidney cancer in humans reported by Shearer et al. (2021) and Vieira et al. (2013). EPA focused on the CSFs derived from the epidemiological data consistent with the EPA ORD handbook which states ''when both laboratory animal data and human data with sufficient information to perform exposure-response modeling are available, human data are generally preferred for the derivation of toxicity values'' (USEPA, 2022f).

EPA selected the critical effect of RCCs in human males reported by Shearer et al. (2021) as the basis of the CSF for PFOA. Shearer et al. (2021) is a multi-center case-control epidemiological study nested within the National Cancer Institute's (NCI) Prostate, Lung, Colorectal, and Ovarian Screening Trial (PLCO) with median PFOA levels relevant to the general U.S. population. The PLCO is a randomized clinical trial of the use of serum biomarkers for cancer screening. The cases in Shearer et al. (2021) included all the participants in the screening arm of the PLCO trial who were newly diagnosed with RCC during the follow-up period (N = 326) and all cases were histopathologically confirmed. Controls were selected among participants in the PLCO trial screening arm based on those who had never had RCC and were individually matched to the RCC cases by age at enrollment, sex, race/ethnicity, study center, and year of blood draw. Additionally, analyses conducted by the authors accounted for numerous confounders, including the potential for confounding by other PFAS. Study design advantages of the Shearer et al. (2021) compared with the Vieira et al. (2013) include specificity in the health outcome considered (RCC vs. any kidney cancer), the type of exposure assessment (serum biomarker vs. modeled exposure), source population (multi-center vs. Ohio and West Virginia regions), and study size (324 cases and 324 matched controls vs. 59 cases and 7,585 registry-based controls). The resulting CSF is 0.0293 $(ng/kg/day)^{-1}$.

Selection of RCCs as the critical effect is supported by similar findings from other studies of a highly exposed community (Barry et al., 2013; Vieira et al., 2013), an occupational kidney cancer mortality study (Steenland and Woskie, 2012), as well as a meta-analysis of epidemiological literature that concluded that there was an increased risk of kidney tumors correlated with increased PFOA serum concentrations (Bartell et al., 2021). Further discussion of the rationale for endpoint and study selection and descriptions of the modeling methods are described in USEPA (2023b).

2. Assessment of Noncancer Health Effects and Reference Dose (RfD) Derivation

The Agency has also considered noncancer effects in its assessment of the best available science to derive the MCLG. As described in USEPA (2023b), there is evidence from both human epidemiological and animal toxicological studies that oral PFOA exposure may result in adverse health effects across many health outcomes, including but not limited to: immune, hepatic, developmental, cardiovascular, reproductive, and endocrine outcomes. As recommended by the SAB (USEPA, 2022a), EPA has largely focused its systematic literature review, health outcome synthesis, and toxicity value derivation efforts ''on those health outcomes that have been concluded to have the strongest evidence, including the liver disease, immune system dysfunction, serum lipid aberration, impaired fetal growth, and cancer.'' Conclusions regarding the four noncancer adverse health outcome categories (*i.e.,* judgements for human, animal, and integrated evidence streams (USEPA, 2023b)) are described in the subsections below. Descriptions of studies and the basis for conclusions about the non-prioritized health outcomes are described in USEPA (2023b).

a. Summary of Noncancer Health Effects

EPA determined that the evidence indicates that oral PFOA exposure is associated with adverse hepatic effects based on the study quality evaluation, evidence synthesis and evidence integration of the relevant human epidemiological and animal toxicity studies. There is moderate evidence from epidemiological studies supporting an association between PFOA exposure and hepatic outcomes such as elevated serum liver enzymes indicative of hepatic damage. Overall, there is consistent evidence of a positive association between PFOA serum concentrations and alanine aminotransferase (ALT), a liver enzyme marker. The evidence of hepatic effects in humans was supported by robust evidence of hepatic effects resulting from PFOA exposure in animal studies. Several studies provide comprehensive histopathological reports of non-neoplastic hepatic lesions (*e.g.,* hepatocellular death and necrosis) in PFOA-treated rodents, as well as increases in serum liver enzymes similar to the trends observed in humans.

EPA determined that the evidence indicates that oral PFOA exposure is associated with adverse immunological effects based on the study quality evaluation, evidence synthesis and evidence integration of the relevant human epidemiological and animal toxicity studies. There is moderate evidence from epidemiological studies supporting an association between PFOA and immune outcomes such as immunosuppression. Overall, there is consistent evidence of an association between PFOA serum concentrations and developmental immune effects (*i.e.,* reduced antibody response to vaccination in children). Associations between PFOA and other immune system effects (*e.g.,* hypersensitivity and autoimmune disease) were mixed. The evidence for developmental immunological effects in humans was supported by moderate evidence of immunotoxicity resulting from PFOA exposure in animal studies. Studies report varying manifestations of immune system effects including altered immune cell populations and altered spleen and thymus cellularity and weight. PFOA treatment resulted in reduced globulin and immunoglobulin levels in animals that are consistent with the decreased antibody response seen in human populations (*i.e.,* the observed animal and human study health outcomes are both indicators of immunosuppression).

EPA determined that the evidence indicates that oral PFOA exposure is associated with adverse developmental effects based on the study quality evaluation, evidence synthesis and evidence integration of the relevant human epidemiological and animal

toxicity studies. There is moderate evidence from epidemiological studies supporting an association between PFOA and developmental outcomes such as fetal growth. Overall, there is consistent evidence of a relationship between PFOA concentrations and low birth weight. Associations between PFOA and other developmental effects (*e.g.,* postnatal growth, fetal loss, and birth defects) were mixed. The evidence for developmental effects in humans was supported by robust evidence of developmental toxicity resulting from PFOA exposure in animal studies. Several studies in rodents provide evidence of decreased fetal and pup weight due to gestational PFOA exposure, consistent with the evidence of low birth weight in humans. Other pre- and post-natal effects observed in animal models include decreased offspring survival and developmental delays (*e.g.,* delayed eye opening).

EPA determined that the evidence indicates that oral PFOA exposure is associated with adverse cardiovascular effects based on the study quality evaluation, evidence synthesis and evidence integration of the relevant human epidemiological and animal toxicity studies. There is moderate evidence from epidemiological studies supporting an association between PFOA and cardiovascular outcomes such as alterations in serum lipids. Overall, there is consistent evidence of positive relationships between PFOA serum concentrations and serum total cholesterol, low-density lipoproteins, and triglycerides. There is also limited evidence of positive associations of PFOA with blood pressure and hypertension among adult populations. The evidence for cardiovascular effects in humans was supported by moderate evidence of cardiovascular effects resulting from PFOA exposure in animal studies. Several studies in rodents provide evidence of alterations in serum total cholesterol and triglycerides, though the effect direction varied with dose. Regardless, these effects indicate a disruption in lipid metabolism resulting from PFOA treatment, consistent with the alterations in serum lipids observed in humans.

b. RfD Derivation

The databases for the four prioritized health outcomes were evaluated further for identification of medium and high confidence studies and endpoints to select for dose-response modeling. EPA prioritized endpoints with the strongest overall weight of evidence based on human and animal evidence for POD derivation. Specifically, EPA focused the dose response assessment on the health outcomes where the evidence indicated that PFOA causes health effects in humans under relevant exposure circumstances. The focus of this **Federal Register** Notice (FRN) is on epidemiological studies for the four prioritized health outcomes for which studies meeting this consideration were available, as human data are generally preferred ''when both laboratory animal data and human data with sufficient information to perform exposure-response modeling are available'' (USEPA, 2023b). EPA presents PODs and candidate RfDs for animal studies, as well as other health outcomes determined to have sufficient strength of evidence and studies suitable for dose-response modeling in USEPA (2023b).

EPA identified four candidate critical effects across the four prioritized health outcomes, all of which were represented by several candidate critical studies. These candidate critical effects are decreased antibody production in response to vaccinations (immune), low birth weight (developmental), increased serum total cholesterol (cardiovascular), and elevated ALT (hepatic). As described in the following paragraphs and in further detail in USEPA (2023b), EPA selected studies from each health outcome to proceed with candidate RfD derivation. For all selected candidate RfDs, the composite UF was 10 (10x for intraspecies variability). The candidate RfDs are presented in Table 3.

Two medium confidence studies were considered for POD derivation for the decreased antibody production in response to various vaccinations in children Budtz-Jørgensen and Grandjean (2018); and Timmerman et al. (2021). These candidate studies offer a variety of PFOA exposure measures across various populations and various vaccinations. Budtz-Jørgensen and Grandjean (2018) investigated anti-tetanus and anti-diphtheria responses in Faroese children aged 5–7 and Timmerman et al. (2021) investigated anti-tetanus and anti-diphtheria responses in Greenlandic children aged 7–12. Though the Timmerman et al. (2021) study is also a medium confidence study, the study by Budtz-Jørgensen and Grandjean (2018) has two additional features that strengthen the confidence in this RfD: (1) the response reported by this study was more precise in that it reached statistical significance, and (2) the analysis considered co-exposures of other PFAS. The RfD for anti-tetanus response in 7-year-old Faroese children and anti-diphtheria response in 7-year-old Faroese children, both from Budtz-Jørgensen and Grandjean (2018) were ultimately selected for the immune outcome as they are the same and have no distinguishing characteristics that would facilitate selection of one over the other.

Six high confidence studies (Chu et al., 2020; Govarts et al., 2016; Sagiv et al., 2018; Starling et al., 2017; Wikström et al., 2020; Yao et al., 2021) reported decreased birth weight in infants whose mothers were exposed to PFOA. These candidate studies offer a variety of PFOA exposure measures across the fetal and neonatal window. All six studies reported their exposure metric in units of ng/mL and reported the β coefficients per ng/mL or ln(ng/mL), along with 95% confidence intervals (CIs), estimated from linear regression models. Of the six individual studies, Sagiv et al. (2018) and Wikström et al. (2020) assessed maternal PFOA serum concentrations primarily or exclusively in the first trimester, minimizing concerns surrounding bias due to pregnancy-related hemodynamic effects. Therefore, the RfDs from these two studies were considered further for candidate RfD selection. Both were high confidence prospective cohort studies with many study strengths including sufficient study sensitivity and largely sound methodological approaches, analysis, and design, as well as no evidence of bias. The RfD from Wikström et al. (2020) was ultimately selected for the developmental outcome as it was the lowest candidate RfD from these two studies.

Three medium confidence studies were considered for POD derivation for the cholesterol endpoint (Dong et al., 2019; Lin et al., 2019; Steenland et al., 2009). These candidate studies offer a variety of PFOA exposure measures across various populations. Dong et al. (2019) investigated the NHANES population (2003–2014), while Steenland et al. (2009) investigated effects in a high-exposure community (the C8 Health Project study population). Lin et al. (2019) collected data from prediabetic adults from the Diabetes Prevention Program (DPP) and DPP Outcomes Study at baseline (1996–1999). Of the three studies, Dong et al. (2019) and Steenland et al. (2009) exclude those prescribed cholesterol medication, minimizing concerns surrounding confounding due to the medical intervention altering serum total cholesterol levels. Additionally, Dong et al. (2019) reported measured serum total cholesterol whereas Steenland et al. (2009) reported regression coefficients as the response variable. Since EPA prefers dose response modeling of endpoint data, the RfD from Dong et al. (2019) was selected for the cardiovascular outcome, as there

is increased confidence in the modeling results from this study.

Four medium confidence studies were selected as candidates for POD derivation for the ALT endpoint (Gallo et al., 2012; Darrow et al., 2016; Nian et al., 2019; Lin et al., 2010). The two largest studies of PFOA and ALT in adults are Gallo et al. (2012) and Darrow et al. (2016), both conducted in over 30,000 adults from the C8 Study. Gallo et al. (2012) reported measured serum ALT levels, unlike Darrow et al. (2016) which reported a modeled regression coefficient as the response variable. Another difference between the two studies is reflected in exposure assessment: Gallo et al. (2012) includes measured PFOA serum concentrations, while Darrow et al. (2016) based PFOA exposure on modeled PFOA serum levels. Two additional studies (Lin et al., 2010; Nian et al., 2019) were considered by EPA for POD derivation because they reported significant associations in general populations in the U.S and a high exposed population in China, respectively. Nian et al. (2019) examined a large population of adults in Shenyang (one of the largest fluoropolymer manufacturing centers in China) part of the Isomers of C8 Health Project. In an NHANES adult population, Lin et al. (2010) observed elevated ALT levels per log-unit increase in PFOA. While this is a large nationally representative population, several methodological limitations, including lack of clarity about base of logarithmic transformation applied to PFOA concentrations in regression models and the choice to model ALT as an untransformed variable preclude its use for POD derivation. While both Nian et al. (2019) and Gallo et al. (2012) provide measured PFOA serum concentrations and a measure of serum ALT levels, the RfD for increased ALT from Gallo et al. (2012) was ultimately selected for the hepatic outcome as it was conducted in a community exposed predominately to PFOA whereas Nian et al. (2019) was in a community exposed predominately to PFOS, which reduces concerns about confounding from other PFAS.

TABLE 3—CANDIDATE REFERENCE DOSES FOR PFOA FOR THE FOUR PRIORITIZED HEALTH OUTCOMES

Study reference	Measurement of exposure and endpoint	Candidate RfD [1] (mg/kg/day)
	Immune	
Budtz-Jørgensen and Grandjean, 2018	**PFOA at age five years and anti-tetanus antibody concentrations at age seven years.**	**3×10^{-8}**
Budtz-Jørgensen and Grandjean, 2018	**PFOA at age five years on anti-diphtheria antibody concentrations at age seven years.**	**3×10^{-8}**
Timmerman et al., 2021	PFOA and anti-tetanus antibody concentrations at ages 7–10 years	3×10^{-8}
Timmerman et al., 2021	PFOA and anti-diphtheria antibody concentrations at ages 7–10 years	2×10^{-8}
	Developmental	
Sagiv et al., 2018	PFOA in first trimester and decreased birth weight	1×10^{-7}
Wikström et al., 2020	**PFOA in first and second trimesters and decreased birth weight**	**3×10^{-8}**
	Cardiovascular	
Dong et al., 2019	**Increased serum total cholesterol**	**3×10^{-8}**
Steenland et al., 2009	Increased serum total cholesterol	5×10^{-8}
	Hepatic	
Gallo et al., 2012	**Increased serum ALT**	**2×10^{-7}**
Darrow et al., 2016	Increased serum ALT	8×10^{-7}
Nian et al., 2019	Increased serum ALT	5×10^{-8}

Notes:
[1] RfDs are rounded to 1 significant digit.
Bolded values indicate selected health outcome-specific RfDs.

The available evidence indicates there are effects across immune, developmental, cardiovascular, and hepatic organ systems at the same or approximately the same level of PFOA exposure. Candidate RfDs within the immune, developmental, and cardiovascular outcomes are the same value (*i.e.,* 3 × 10–8 mg/kg/day). Therefore, EPA has selected an overall RfD for PFOA of 3 × 10–8 mg/kg/day. The immune, developmental and cholesterol RfDs and serve as co-critical effects and are protective of effects that may occur in sensitive populations (*i.e.,* infants and children), as well as hepatic effects that may result from PFOA exposure.

c. MCLG Derivation

Consistent with the *Guidelines for Carcinogen Risk Assessment* (USEPA, 2005), EPA reviewed the weight of the evidence and determined that PFOA is *Likely to Be Carcinogenic to Humans,* as ''the evidence is adequate to demonstrate carcinogenic potential to humans but does not reach the weight of evidence for the descriptor Carcinogenic to Humans.'' This determination is based on the evidence of kidney and testicular cancer in humans and LCTs, pancreatic acinar cell tumors, and hepatocellular adenomas in rats as described in USEPA (2023b).

Consistent with the statutory definition of MCLG, EPA establishes MCLGs of zero for carcinogens classified as *Carcinogenic to Humans* or *Likely to be Carcinogenic to Humans* where there is insufficient information to determine that a carcinogen has a threshold dose below which no carcinogenic effects have been observed. In this situation, EPA takes a health protective approach of assuming that there is no such threshold and that carcinogenic effects should therefore be extrapolated linearly to zero. This approach ensures that the MCLG is set at a level where there are no anticipated adverse health effects with a margin of safety. This is the linear default extrapolation

approach. Here, EPA has determined that PFOA is *Likely to be Carcinogenic to Humans* based on sufficient evidence of carcinogenicity in humans and animals and has also determined that a linear default extrapolation approach is appropriate as there is no evidence demonstrating a threshold level of exposure below which there is no appreciable cancer risk (USEPA, 2005) and therefore, it is assumed that there is no known threshold for carcinogenicity (USEPA, 2016d). Based upon a consideration of the best available peer reviewed science and a consideration of an adequate margin of safety, EPA proposes a MCLG of zero for PFOA in drinking water.

EPA is seeking comment on the derivation of the proposed MCLG for PFOA and its determination that PFOA is *Likely to be Carcinogenic to Humans* and whether the proposed MCLG is set at the level at which there are no adverse effects to the health of persons and which provides an adequate margin of safety. EPA is also seeking comment on its assessment of the noncancer effects associated with exposure to PFOA and the toxicity values described in USEPA (2023b).

B. PFOS

1. Carcinogenicity Assessment and CSF Derivation

a. Summary of Cancer Health Effects

Several medium and high confidence human epidemiological studies and one high confidence animal chronic cancer bioassay comprise the evidence database for the carcinogenicity of PFOS. The available epidemiology studies reported elevated risk of bladder, prostate, kidney, and breast cancers after chronic PFOS exposure. While there are reports of cancer incidence from epidemiological studies, the study designs, analyses, and mixed results preclude a definitive conclusion about the relationship between PFOS exposure and cancer outcomes in humans. The one high confidence animal chronic cancer bioassay study provides evidence of multi-site tumorigenesis in both male and female rats.

While the epidemiological evidence of associations between PFOS and cancer found mixed results across tumor types, the available study findings support a plausible correlation between PFOS exposure and carcinogenicity in humans. The single chronic cancer bioassay performed in rats is positive for multi-site and -sex tumorigenesis (Thomford, 2002; Butenhoff et al., 2012b). In this study, statistically significant increases in the incidences of hepatocellular adenomas or combined hepatocellular adenomas and carcinomas were observed in both male and female rats. There was also a statistically significant dose-response trend of these tumors in both sexes. As described in USEPA (2023c), the available mechanistic evidence is consistent with multiple potential MOAs for this tumor type; therefore, the hepatocellular tumors observed by Thomford (2002)/Butenhoff et al. (2012b) may be relevant to humans. In addition to hepatocellular tumors, Thomford (2002)/Butenhoff et al. (2012b) reported increased incidences of pancreatic islet cell tumors with a statistically significant dose-dependent positive trend, as well as modest increases in the incidence of thyroid follicular cell tumors. The findings of multiple tumor types provide additional support for potential multi-site tumorigenesis resulting from PFOS exposure. Structural similarities between PFOS and PFOA add to the weight of evidence for carcinogenicity of PFOS. Notably, a similar set of noncancer effects have been observed after exposure to either PFOA or PFOS in humans and animal studies including similarities in hepatic, developmental, immunological, cardiovascular, and endocrine effects.

Under the *Guidelines for Carcinogen Risk Assessment* (USEPA, 2005), EPA reviewed the weight of the evidence and determined that PFOS is *Likely to Be Carcinogenic to Humans,* as ''the evidence is adequate to demonstrate carcinogenic potential to humans but does not reach the weight of evidence for the descriptor Carcinogenic to Humans.'' As described in USEPA (2023c), EPA determined that the available data for PFOS surpass many of the descriptions for the descriptor of *Suggestive Evidence of Carcinogenic Potential.*

b. CSF Derivation

The Thomford (2002)/Butenhoff et al. (2012b) chronic cancer study in male and female rats is of high confidence and provides multi-dose tumor incidence findings that are suitable for dose-response modeling and subsequent CSF derivation. As described in USEPA (2023c), EPA derived PODs and candidate CSFs for three endpoints reported by this study: hepatocellular adenomas in male rats; combined hepatocellular adenomas and carcinomas in female rats; and pancreatic islet cell carcinomas in male rats.

EPA selected the hepatocellular adenomas and carcinomas in female rats reported by Thomford (2002)/Butenhoff et al. (2012b) as the basis of the CSF for PFOS because there was a statistically significant increase in tumor incidence in the highest dose group, a trend of increased incidence with increasing PFOS concentrations across dose groups, and it was the most health-protective value. The resulting CSF is 39.5 (mg/kg/day)-1. Selection of hepatocellular adenomas and carcinomas in female rats is supported by statistically significant increases in hepatocellular tumor incidence in the high dose group as well as a statistically significant trend of this response observed in the male rats. The critical effect of pancreatic islet cell carcinomas was not selected as the basis of the CSF because the response of the high dose group was not statistically different from the control group, though the trend of response across dose groups was statistically significant. Further discussion on the rationale for endpoint selection and descriptions of the modeling methods are described in USEPA (2023c).

In support of the selection of hepatocellular tumors as the basis of the CSF for PFOS, a recently published study (Goodrich et al., 2022) reports associations between hepatocellular carcinomas and PFOS serum concentrations in humans. These findings provide further support for both MOA conclusions in USEPA (2023c) and the ''Likely to Be Carcinogenic to Humans'' designation. This study was published after the systematic literature review cutoff date for the proposed MCLG for PFOS (USEPA, 2023c), therefore EPA requests comment on the Goodrich et al. (2022) study and whether it supports EPA's ''Likely to Be Carcinogenic to Humans'' designation.

2. Assessment of Noncancer Health Effects and Reference Dose (RfD) Derivation

The Agency has also considered noncancer effects in its assessment of the best available science to derive the MCLG. As described in USEPA (2023c), there is evidence from both human epidemiological and animal toxicological studies that oral PFOS exposure may result in adverse health effects across many health outcomes, including but not limited to immune, hepatic, developmental, cardiovascular, nervous system, and endocrine outcomes. As recommended by the SAB (USEPA, 2022a), EPA has focused its systematic literature review, health outcome synthesis, and toxicity value derivation efforts ''on those health outcomes that have been concluded to have the strongest evidence, including

the liver disease, immune system dysfunction, serum lipid aberration, impaired fetal growth, and cancer.'' Conclusions regarding the four noncancer adverse health outcome categories (*i.e.,* judgements for human, animal, and integrated evidence streams (USEPA, 2022f)) are described in the subsections below. Descriptions and conclusions about the non-priority health outcomes are described in USEPA (2023c).

a. Summary of Noncancer Health Effects

EPA determined that the evidence indicates that oral PFOS exposure is associated with adverse hepatic effects based on the study quality evaluation, evidence synthesis and evidence integration of the relevant human epidemiological and animal toxicity studies. Specifically, there is moderate evidence from epidemiological studies supporting an association between PFOS exposure and hepatic outcomes such as elevated serum liver enzymes indicative of hepatic damage. Overall, there is consistent evidence of a positive association between PFOS serum concentrations and ALT, a liver enzyme marker. The evidence of hepatic effects in humans was supported by robust evidence of hepatotoxicity resulting from PFOS exposure in animal studies. Studies in rodents observed several manifestations of hepatic toxicity including histopathological reports of non-neoplastic hepatic lesions (*e.g.,* hepatic necrosis and inflammation) and increases in serum liver enzymes similar to the trends observed in humans.

EPA determined that the evidence indicates that oral PFOS exposure is associated with adverse immunological effects based on the study quality evaluation, evidence synthesis and evidence integration of the relevant human epidemiological and animal toxicity studies. There is moderate evidence from epidemiological studies supporting an association between PFOS and immune outcomes such immunosuppression. Overall, there is generally consistent evidence of an association between PFOS serum concentrations and reduced antibody response to vaccination in children. Associations between PFOS and other immune system effects (*e.g.,* hypersensitivity and asthma) were mixed. The evidence for immunological effects in humans was supported by moderate evidence of immunotoxicity resulting from PFOS exposure in animal studies. Studies in rodents report immune system effects including altered activity of plaque-forming cells and natural killer cells, altered spleen and thymus cellularity, and bone marrow hypocellularity and extramedullary hematopoiesis. The alterations in plaque-forming and natural killer cells in animals are consistent with the decreased antibody response seen in human populations (*i.e.,* the observed animal and human study health outcomes are both indicators of immunosuppression).

EPA determined that the evidence indicates that oral PFOS exposure is associated with adverse developmental effects, based on the study quality evaluation, evidence synthesis and evidence integration of the relevant human epidemiological and animal toxicity studies. There is moderate evidence from epidemiological studies supporting an association between PFOS and developmental outcomes such as fetal growth and gestational duration. Overall, there is consistent evidence of a relationship between PFOS concentrations and low birth weight, preterm birth, and gestational age. Associations between PFOS and postnatal growth were inconsistent while there was limited evidence for other developmental effects (*e.g.,* fetal loss and birth defects). The evidence for developmental effects in humans was supported by moderate evidence of developmental toxicity resulting from PFOS exposure in animal studies. Several studies in rodents provide evidence of decreased fetal and pup weight due to gestational PFOS exposure, consistent with the evidence of low birth weight in humans. Decreased maternal BW was also observed. Other pre- and post-natal effects observed in animal models include increased offspring mortality, skeletal and soft tissue effects, and developmental delays (*e.g.,* delayed eye opening). However, some studies reported no indications of developmental toxicity.

EPA determined that the evidence indicates that oral PFOS exposure is associated with adverse cardiovascular effects, based on the study quality evaluation, evidence synthesis and evidence integration of the relevant human epidemiological and animal toxicity studies. There is moderate evidence from epidemiological studies supporting an association between PFOS and cardiovascular outcomes such as alterations in serum lipids. Overall, there is consistent evidence of positive relationships between PFOS serum concentrations and serum total cholesterol and low-density lipoproteins. There is also evidence of positive associations of PFOS with blood pressure and hypertension in adults. The evidence for cardiovascular effects in humans was supported by moderate evidence of cardiovascular effects resulting from PFOS exposure in animal studies. Several studies in rodents provide evidence of alterations in serum total cholesterol and triglycerides, though the effect direction varied with dose. Regardless, these effects indicate a disruption in lipid metabolism resulting from PFOS treatment, consistent with the alterations in serum lipids observed in humans.

b. RfD Derivation

The databases for the four prioritized health outcomes were evaluated further for identification of medium and high confidence studies and endpoints to select for dose-response modeling. EPA prioritized endpoints with the strongest overall weight of evidence based on human and animal evidence for POD derivation. Specifically, EPA focused the dose response assessment on the health outcomes where the evidence indicated that PFOS causes health effects in humans under relevant exposure circumstances. The focus of this FRN is on epidemiological studies for the four prioritized health outcomes for which studies meeting this consideration were available, as human data are generally preferred ''when both laboratory animal data and human data with sufficient information to perform exposure-response modeling are available'' (USEPA, 2022f). EPA presents PODs and candidate RfDs for animal studies, as well as other health outcomes determined to have sufficient strength of evidence and studies suitable for dose-response modeling in USEPA (2023c).

EPA identified four candidate critical effects across the four prioritized health outcomes, all of which were represented by several candidate critical studies. These candidate critical effects are decreased antibody production in response to vaccinations (immune), low birth weight (developmental), increased serum total cholesterol (cardiovascular), and elevated ALT (hepatic). As described in the following paragraphs and in further detail in USEPA (2023c), EPA selected studies from each health outcome to proceed with candidate RfD derivation. For all selected candidate RfDs, presented in Table 4, the composite UF was 10 (10x for intraspecies variability).

Two medium confidence studies were considered for POD derivation for the decreased antibody production in response to various vaccinations in children Budtz-Jørgensen and Grandjean (2018) and Timmerman et al. (2021). These candidate studies offer a variety

of PFOS exposure measures across various populations and various vaccinations. Budtz-Jørgensen and Grandjean (2018) investigated anti-tetanus and anti-diphtheria responses in Faroese children aged 5–7 and Timmerman et al. (2021) investigated anti-tetanus and anti-diphtheria responses in Greenlandic children aged 7–12. Though the Timmerman et al. (2021) study is also a medium confidence study, the study by Budtz-Jørgensen and Grandjean (2018) has two features that strengthen the results: (1) the response reported by this study reached statistical significance, and (2) the analysis considered co-exposures of other PFAS. The RfD for anti-diphtheria response in 7-year-old Faroese children from Budtz-Jørgensen and Grandjean (2018) was ultimately selected for the immune outcome because the response reported by this study reached statistical significance, this analysis considered co-exposures of other PFAS, and it was the more health-protective of the two vaccine-specific responses reported by Budtz-Jørgensen and Grandjean (2018).

Six high confidence studies (Chu et al., 2020; Sagiv et al., 2018; Starling et al., 2017; Wikström et al., 2020; Darrow et al., 2013; Yao et al., 2021) reported decreased birth weight in infants whose mothers were exposed to PFOS. These candidate studies offer a variety of PFOS exposure measures across the fetal and neonatal window. All six studies reported their exposure metric in units of ng/mL and reported the β coefficients per ng/mL or ln(ng/mL), along with 95% CIs, estimated from linear regression models. Of the six individual studies, Sagiv et al. (2018) and Wikström et al. (2020) assessed maternal PFOS serum concentrations primarily or exclusively in the first trimester, minimizing concerns surrounding bias due to pregnancy-related hemodynamic effects. Therefore, the RfDs from these two studies were considered further for candidate RfD selection. Both were high confidence prospective cohort studies with many study strengths including sufficient study sensitivity and largely sound methodological approaches, analysis, and design, as well as no evidence of bias. The RfD from Wikström et al. (2020) was ultimately selected for the developmental outcome as it was the lowest candidate RfD from these two studies.

Three medium confidence studies were considered for POD derivation for the cholesterol endpoint (Dong et al., 2019; Lin et al., 2019; Steenland et al., 2009). These candidate studies offer a variety of PFOS exposure measures across various populations. Dong et al. (2019) investigated the NHANES population (2003–2014), while Steenland et al. (2009) investigated effects in a high-exposure community (the C8 Health Project study population). Lin et al. (2019) collected data from prediabetic adults from the DPP and DPP Outcomes Study at baseline (1996–1999). Of the three studies, Dong et al. (2019) and Steenland et al. (2009) exclude those prescribed cholesterol medication, minimizing concerns surrounding confounding due to the medical intervention altering serum total cholesterol levels. Additionally, Dong et al. (2019) reported measured serum total cholesterol whereas Steenland et al. (2009) reported modeled regression coefficients as the response variable. Since EPA prefers dose response modeling of measured data, the RfD from Dong et al. (2019) was selected for cardiovascular endpoint as there is increased confidence in the modeling from this study.

Three medium confidence studies were selected as candidates for POD derivation for the ALT endpoint (Gallo et al., 2012; Nian et al., 2019; Lin et al., 2010). The largest study of PFOS and ALT in adults is Gallo et al. (2012), conducted in over 30,000 adults from the C8 Study Project. Two additional studies (Lin et al., 2010; Nian et al., 2019) were considered by EPA for POD derivation because they reported significant associations in general populations in the U.S and a high exposed population in China, respectively. Nian et al. (2019) examined a large population of adults in Shenyang (one of the largest fluoropolymer manufacturing centers in China) part of the Isomers of C8 Health Project. In an NHANES adult population, Lin et al. (2010) observed elevated ALT levels per log-unit increase in PFOS. While this is a large nationally representative population, several methodological limitations, including lack of clarity about base of logarithmic transformation applied to PFOS concentrations in regression models and the choice to model ALT as an untransformed variable preclude its use for POD derivation. The RfD from Nian et al., 2019 was ultimately selected for the hepatic outcome as PFOS was the predominating PFAS in this study which reduces concern about potential confounding by other PFAS.

TABLE 4—CANDIDATE REFERENCE DOSES FOR PFOS FOR THE FOUR PRIORITIZED HEALTH OUTCOMES

Study	Endpoint	Candidate RfD [1] (mg/kg/day)
	Immune	
Budtz-Jørgensen and Grandjean, 2018 ..	PFOS at age five years and anti-tetanus antibody concentrations at age seven years.	3×10^{-7}
Budtz-Jørgensen and Grandjean, 2018	**PFOS at age five years on anti-diphtheria antibody concentrations at age seven years.**	**2×10^{-7}**
Timmerman et al., 2021	PFOS and anti-tetanus antibody concentrations at ages 7–10 years	2×10^{-7}
Timmerman et al., 2021	PFOS and anti-diphtheria antibody concentrations at ages 7–10 years	1×10^{-7}
	Developmental	
Sagiv et al., 2018	PFOS in first trimester and decreased birth weight	6×10^{-7}
Wikström et al., 2020	**PFOS in first and second trimesters and decreased birth weight**	**1×10^{-7}**
	Cardiovascular	
Dong et al., 2019	**Increased serum total cholesterol**	**1×10^{-7}**
Steenland et al., 2009	Increased serum total cholesterol	1×10^{-7}
	Hepatic	
Gallo et al., 2012	Increased serum ALT	7×10^{-7}

TABLE 4—CANDIDATE REFERENCE DOSES FOR PFOS FOR THE FOUR PRIORITIZED HEALTH OUTCOMES—Continued

Study	Endpoint	Candidate RfD [1] (mg/kg/day)
Nian et al., 2019	**Increased serum ALT**	**2×10^{-7}**

Notes:
[1] RfDs are rounded to 1 significant digit.
Bolded values indicate selected health outcome-specific RfDs.

The available evidence indicates there are effects across immune, developmental, cardiovascular, and hepatic organ systems at the same or approximately the same level of PFOS exposure. Candidate RfDs within the developmental and cardiovascular outcomes are the same value (*i.e.,* 1 × 10–7 mg/kg/day). Therefore, EPA has selected an overall RfD for PFOS of 1 × 10–7 mg/kg/day. The developmental and cholesterol RfDs serve as co-critical effects and are protective of immune and hepatic effects that may result from PFOS exposure.

c. MCLG Derivation

Consistent with the *Guidelines for Carcinogen Risk Assessment* (USEPA, 2005), EPA reviewed the weight of the evidence and determined that PFOS is *Likely to Be Carcinogenic to Humans,* as ''the evidence is adequate to demonstrate carcinogenic potential to humans but does not reach the weight of evidence for the descriptor Carcinogenic to Humans.'' This determination is based on the evidence of hepatocellular tumors in male and female rats, pancreatic islet cell carcinomas in male rats, and mixed but plausible evidence of bladder, prostate, kidney, and breast cancers in humans. As previously noted, the results provided by one chronic cancer bioassay in rats exceeds the descriptor of *Suggestive Evidence of Carcinogenic Potential* as it provides evidence of multi-site and multi-sex tumorigenesis (Thomford, 2002; Butenhoff et al., 2012b).

Consistent with the statutory definition of MCLG, EPA establishes MCLGs of zero for carcinogens classified as *Carcinogenic to Humans* or *Likely to be Carcinogenic to Humans,* described in Section V.A. of this preamble above as the linear default extrapolation approach. EPA has determined that PFOS is *Likely to be Carcinogenic to Humans* based on sufficient evidence of carcinogenicity in humans and animals and has also determined that a linear default extrapolation approach is appropriate as there is no evidence demonstrating a threshold level of exposure below which there is no appreciable cancer risk (USEPA, 2005) and therefore, it is assumed that there is no known threshold for carcinogenicity (USEPA, 2016d). Based upon a consideration of the best available peer reviewed science and a consideration of an adequate margin of safety, EPA proposes a MCLG of zero for PFOS in drinking water.

EPA is seeking comment on the derivation of the proposed MCLG for PFOS, its determination that PFOS is *Likely to be Carcinogenic to Humans* and whether the proposed MCLG is set at the level at which there are no adverse effects to the health of persons and which provides an adequate margin of safety. EPA is also seeking comment on its assessment of the noncancer effects associated with exposure to PFOS and the toxicity values described in USEPA (2023c).

C. PFAS Hazard Index: PFHxS, HFPO–DA, PFNA, and PFBS

1. Background

Although it would be optimal to leverage whole mixture data for human health risk assessment, such data for PFAS and other chemicals are extremely rare, particularly at component-chemical (*i.e.,* individual PFAS) proportions consistent with environmental mixtures. As such, mixtures assessment commonly relies upon integration of toxicity information for the individual component chemicals that co-occur in environmental media. In order to assess the potential health risks associated with PFAS mixtures, EPA has developed a *Framework for Estimating Noncancer Health Risks Associated with Mixtures of Per- and Polyfluoroalkyl Substances (PFAS)* (''PFAS Mixtures Framework'') (USEPA, 2023d), based on existing EPA mixtures guidelines and guidance (USEPA, 1986a, 2000a). The PFAS Mixtures Framework describes a flexible approach that facilitates practical component-based mixtures evaluation of two or more PFAS based on dose additivity. Studies with PFAS and other classes of chemicals support the assumption that a mixture of chemicals with similar apical effects should be assumed to also act in a dose additive manner unless data demonstrate otherwise. This health protective assumption for PFAS mixture assessment was supported by the SAB in their recent review of the draft PFAS Mixtures Framework (USEPA, 2022a). All of the approaches described in the PFAS Mixtures Framework, including the HI approach (Section III of this preamble), involve integrating dose-response metrics that have been scaled based on the potency of each PFAS in the mixture. As discussed in section XV of this preamble, the SAB has reviewed the PFAS Mixtures Framework, and concluded that the approaches in that document, including the HI approach, are scientifically robust and defensible for assessing dose additive effects from co-occurring PFAS (USEPA, 2022a).

The MOA is considered a key determinant of chemical toxicity. It describes key changes in cellular interaction that may lead to functional or anatomical changes. Toxicants are classified by their type of toxic actions. Yet, because PFAS are an emerging chemical class of note for toxicological evaluations and human health risk assessment, MOA data may be limited or not available at all for many PFAS. Component-based approaches for assessing risks of PFAS mixtures are focused on evaluation of similarity of toxicity endpoint/effect rather than similarity in MOA, consistent with EPA mixtures guidance (USEPA, 2000a). Precedents of prior research conducted on mixtures of various chemical classes with common key events and adverse outcomes support the use of dose additive models for estimating mixture-based effects, even in instances where chemicals with disparate molecular initiating events were included. Thus, in the absence of detailed characterization of molecular mechanisms for most PFAS, it is considered a reasonable health-protective assumption, consistent with the statute's admonition to ensure an adequate margin of safety (1412(b)(4)(A)), that PFAS which can be demonstrated to share one or more key events or adverse outcomes will produce dose-additive effects from co-exposure (USEPA, 2022c, 2023a). This assumption of dose additivity and the HI approach was supported by the SAB in its review of the draft PFAS Mixtures

Framework (USEPA, 2022a). For a detailed description of the evidence supporting dose additivity for PFOA, PFOS, and other PFAS, see the revised PFAS Mixtures Framework (USEPA, 2023d).

Following EPA's data-driven approach for component-based mixtures assessment based on dose additivity (*i.e.,* see Figure 4–1 in USEPA, 2023d), the Agency selected the HI approach for MCLG development to ensure the Agency is protecting against dose additive risk from mixtures of PFHxS, HFPO–DA, PFNA, and PFBS. While a single PFAS may occur in concentrations below where EPA might establish an individual MCLG, PFAS tend to co-occur (see discussion in sections III.C and VII of this preamble). Hence, there are some situations where setting an MCLG while only considering the concentration of an individual PFAS without considering the dose additive effects that would occur from other PFAS that may be present in a mixture may not provide a sufficiently protective MCLG with an adequate margin of safety. For this proposed rule, in addition to the PFOA and PFOS assessments discussed above, peer reviewed, publicly available assessments with final toxicity values (*i.e.,* RfDs, Minimal Risk Levels) are available for HFPO–DA (USEPA, 2021b), PFBS (USEPA, 2021a), PFNA (ATSDR, 2021), and PFHxS (ATSDR, 2021). These toxicity values (along with DWI–BW and RSC) are used to derive the HBWCs for the HI approach for PFHxS, HFPO–DA, PFNA, and PFBS. EPA is seeking comment on derivation of the HBWCs for each of the four PFAS considered as part of the HI. See discussion in section VI.C of this preamble as to why EPA is not proposing to include PFOA and PFOS in the HI MCLG at this time.

As discussed previously in this document, the Agency is proposing the general HI as the most appropriate and justified approach for considering PFAS mixtures in this rulemaking because of the level of protection afforded for diverse endpoints. SDWA requires the Agency to establish a health-based MCLG set at, ''a level at which no known or anticipated adverse effects on the health of persons occur and which allow for an adequate margin of safety.'' The Safe Drinking Water Act defines the term ''contaminant'' very broadly to mean any ''physical, chemical, biological, or radiological substance or matter in water (SDWA 1401 4(A)(ii)(C)(6)).'' In this context, this proposal addresses contaminants and certain mixtures of contaminants. A mixture of two or more ''contaminants'' qualifies as a ''contaminant'' because the mixture itself is ''*any* physical, chemical or biological or radiological substance or matter in water.'' (emphasis added). EPA has a long-standing history of regulating contaminants in this manner (*i.e.,* as contaminant groups or mixtures). For instance, the TTHM Rule (U.S. EPA, 1979) EPA regulated total trihalomethanes as a group due to their concurrent formation during the chlorination of drinking water; EPA stating that the four regulated THMs were ''also indicative of the presence of a host of other halogenated and oxidized, potentially harmful byproducts of the chlorination process that are concurrently formed in even larger quantities but which cannot be characterized chemically'' (USEPA, 1979). In the Stage I and II Disinfection Byproduct (DBPs) Rules, EPA regulates a second group of DBPs, in this instance setting regulatory standards for a group of five haloacetic acids (HAA5) (USEPA, 1998a; 2006a). A third example is EPA's regulation of radionuclides, where, among other things, EPA regulates radionuclides mixtures for gross alpha radiation that account for both natural and man-made alpha emitters as a group rather than individually (USEPA, 2000d). In summary, EPA has the statutory authority to regulate groups and/or mixtures of contaminants, EPA has a history of regulating groups and mixtures of contaminants that have improved public health protection, and EPA has made a reasonable policy choice for establishing an MCLG for a mixture of chemicals that are expected to impact multiple endpoints. Because mixture component chemical HBWCs are based on overall (*i.e.,* not target-organ specific) RfDs, the approach is protective against all health effects across component chemicals and therefore meets the statutory requirements of establishing an MCLG under SDWA. Basing the mixture MCLG on overall RfDs ensures that there are no known or anticipated effects, and using the HI adds an appropriate margin of safety for a class of contaminants that have been shown to co-occur and evidence indicates that they have additive toxicity.

2. PFAS Mixture MCLG Derivation

To account for dose additive noncancer effects associated with PFHxS, HFPO–DA, PFNA, and PFBS, EPA is proposing an MCLG for the mixture of these four PFAS based on the HI approach (USEPA, 2023a). As described in Section IV of this preamble, a mixture HI can be calculated when HBWCs for a set of PFAS are available or can be calculated. The health effects information including relevant studies mentioned in this section are summarized from USEPA (2023a) and are also described in Section III of this preamble.

There is currently no EPA RfD available for PFHxS; however, EPA's IRIS program is developing a human health toxicity assessment for PFHxS (expected to undergo public comment and external peer review in 2023). The HBWC for PFHxS is derived using an ATSDR intermediate-duration oral Minimal Risk Level based on thyroid effects seen in male rats after oral PFHxS exposure (ATSDR, 2021; USEPA, 2023a). ATSDR calculated an HED of 0.0047 mg/kg/day and applied a combined UF/MF factor of 300X (total UF of 30X and a MF of 10X for database deficiencies) to yield an intermediate-duration oral Minimal Risk Level of 2E–05 mg/kg/day (ATSDR, 2021). To calculate the HBWC, EPA applied an additional UF of 10 to adjust for subchronic-to-chronic duration, per Agency guidance (USEPA, 2002), because the effect is not in a developmental population (*i.e.,* thyroid follicular epithelial hypertrophy/hyperplasia in parental male rats). The resulting chronic reference value for use in HBWC calculation was 2E–06 mg/kg/day. EPA selected a DWI–BW for adults within the general population (0.034 L/kg/day) and applied an RSC of 20 percent (USEPA, 2022c). The resulting HBWC for PFHxS is 9 ng/L (ppt) (USEPA, 2022c).

Like EPA's drinking water health advisory for HFPO–DA and its ammonium salt (USEPA, 2022d), the HBWC that the agency is using for the HI MCLG was derived from the agency's 2021 human health toxicity assessment, specifically the chronic RfD of 3E–06 mg/kg/day based on liver effects observed following oral exposure of mice to HFPO–DA (USEPA, 2021b). EPA selected a DWI–BW for lactating women (0.0469 L/kg/day) and applied an RSC of 20 percent (USEPA, 2023a) to calculate the HBWC for HFPO–DA. The HBWC for HFPO–DA is 10 ng/L (ppt) (USEPA, 2023a).

There is currently no EPA RfD available for PFNA; however, EPA's IRIS program is developing a human health toxicity assessment for PFNA. The HBWC for PFNA is derived using an ATSDR intermediate-duration oral Minimal Risk Level that was based on developmental effects seen in mice after oral PFNA exposure (ATSDR, 2021; USEPA, 2023a). ATSDR calculated an HED of 0.001 mg/kg/day and applied a combined UF/MF factor of 300X (total UF of 30X and a MF of 10X for database

deficiencies) to yield an intermediate-duration oral Minimal Risk Level of 3E–06 mg/kg/day (ATSDR, 2021). EPA did not apply an additional UF to adjust for subchronic-to-chronic duration for PFNA because the critical effects were observed during a developmental life stage (USEPA, 2002). EPA used the chronic reference value of 3E–06 mg/kg/day to calculate the HBWC for PFNA. EPA selected a DWI–BW for lactating women (0.0469 L/kg/day) and applied an RSC of 20 percent (USEPA, 2023a). The resulting HBWC for PFNA is 10 ng/L (ppt) (USEPA, 2023a).

Like EPA's drinking water health advisory for PFBS (USEPA, 2022e), the HBWC that the agency is using for the HI MCLG was derived from the agency's 2021 human health toxicity assessment, specifically the chronic RfD of 3E–04 mg/kg/day based on thyroid effects observed seen in newborn mice born to mothers that had been orally exposed to PFBS throughout gestation (USEPA, 2021a; 2023a). EPA selected a DWI–BW for women of child-bearing age (0.0354 L/kg/day) and applied an RSC of 20 percent (USEPA, 2023a) to calculate the HBWC for PFBS. The HBWC for PFBS is 2,000 ng/L (ppt) (USEPA, 2023a).

As described above, the HBWCs for PFHxS, HFPO–DA, PFNA, and PFBS are 9, 10, 10, and 2000 ppt respectively (see Section III.A of this preamble, as well as in USEPA (2022c)). HQs are calculated by dividing the measured component PFAS concentration in water (*e.g.,* expressed as ppt) by the relevant HBWC (*e.g.,* expressed as ppt), as shown in the equation below. Component HQs are then summed across the PFAS mixture to yield the PFAS mixture HI MCLG. Thus, the HI accounts for differences in toxicity among the mixture component chemicals rather than weighting them all equally in the mixture. A PFAS mixture HI greater than 1.0 indicates an exceedance of the health protective level and indicates potential human health risk for noncancer effects from the PFAS mixture in water. For more details on this approach, please see USEPA (2023a). The proposed mixture HI MCLG for PFHxS, HFPO–DA, PFNA, and PFBS is as follows:

$$HI\ MCLG = \left(\frac{[GenX_{water}]}{[GenX_{HBWC}]}\right) + \left(\frac{[PFBS_{water}]}{[PFBS_{HBWC}]}\right) + \left(\frac{[PFNA_{water}]}{[PFNA_{HBWC}]}\right) + \left(\frac{[PFHxS_{water}]}{[PFHxS_{HBWC}]}\right) = 1.0$$

$$HI\ MCLG = \left(\frac{[GenX_{water}]}{[10\ ppt]}\right) + \left(\frac{[PFBS_{water}]}{[2000\ ppt]}\right) + \left(\frac{[PFNA_{water}]}{[10\ ppt]}\right) + \left(\frac{[PFHxS_{water}]}{[9\ ppt]}\right) = 1.0$$

Where:

$[PFAS_{water}]$ = the measured component PFAS concentration in water and

$[PFAS_{HBWC}]$ = the HBWC of a component PFAS.

For example, if each of the four PFAS are measured at their respective proposed PQLs described in section VIII.A. of this preamble, the HI calculation would be as follows:

$$HI\ MCLG = \left(\frac{GenX\ [5\ ppt]}{[10\ ppt]}\right) + \left(\frac{PFBS\ [3\ \text{ppt}]}{[2000\ ppt]}\right) + \left(\frac{[PFNA\ 4\ ppt]}{[10\ ppt]}\right) + \left(\frac{[PFHxS\ 3\ ppt]}{[9\ ppt]}\right)$$

$$= 0.5 + 0.002 + 0.4 + 0.3 = 1.2$$

In this scenario, while none of the individual PFAS contaminants exceed their relative HBWC, when considered in the HI, the sum of the four PFAS in the HI exceeds 1.0, and therefore is higher than the MCLG. In the following example, if only PFNA and PFHxS were measured at 8 ppt each, while also below their individual HWBCs, the two would sum to an exceedance of the HI.

$$HI\ MCLG = \left(\frac{GenX\ [0\ ppt]}{[10\ ppt]}\right) + \left(\frac{PFBS\ [0\ \text{ppt}]}{[2000\ ppt]}\right) + \left(\frac{[PFNA\ 8\ ppt]}{[10\ ppt]}\right) + \left(\frac{[PFHxS\ 8\ ppt]}{[9\ ppt]}\right)$$

$$= 0 + 0 + 0.8 + 0.8 = 1.6$$

In a final example, if only a single PFAS, PFHxS were reported above its PQL, but that value was 20, this would also result in an HI higher than 1.0.

$$HI\ MCLG = \left(\frac{GenX\ [0\ ppt]}{[10\ ppt]}\right) + \left(\frac{PFBS\ [0\ ppt]}{[2000\ ppt]}\right) + \left(\frac{[PFNA\ [0\ ppt]}{[10\ ppt]}\right) + \left(\frac{[PFHxS\ [20\ ppt]}{[9\ ppt]}\right)$$

$$= 0 + 0 + 0 + 2.2 = 2.2$$

EPA requests comment on significant figure use when calculating both the HI MCLG and the MCL (see discussion in section VI of this preamble). EPA has set the HI MCLG and MCL using two significant figures (*i.e.,* 1.0). EPA requests comment on the proposed use of two significant figures for the MCLG when considering underlying health information and for the MCL when considering the precision of the analytical methods.

In conclusion, while current weight of evidence suggests that PFAS vary in their precise structure and function, exposure to different PFAS can result in similar health effects. As a result, PFAS exposures are likely to result in dose-additive effects (ATSDR, 2021; USEPA, 2023a) and therefore the assumption of dose-additivity is reasonable. While individual PFAS can pose a potential risk to human health if the exposure level exceeds the chemical-specific toxicity value (RfD or Minimal Risk Level) (*i.e.,* individual PFAS HQ >1.0), mixtures of PFAS can result in dose additive health effects when lower individual concentrations of PFAS are present in that mixture. For example, if the individual HQs for PFHxS, HFPO–DA, PFNA, and PFBS were each 0.9 that would indicate that the measured concentration of each PFAS in drinking water is below the level of appreciable risk (recall that an RfV, such as an oral RfD, represents an estimate at which no appreciable risk of deleterious effects exists). However, the overall HI for that mixture would be 3.6 (*i.e.,* sum of four HQs of 0.9). An HI of 3.6 means that the total measured concentration of PFAS is 3.6 times the level associated with potential health risks. Thus, setting an MCLG while only considering the concentration of an individual PFAS without considering the dose additive effects from other PFAS in a mixture would not provide a sufficiently protective MCLG with an adequate margin of safety. In order to account for dose additive noncancer effects associated with co-occurring PFAS and PFAS in mixtures, to protect against health impacts from likely multi-chemical exposures of PFHxS, HFPO–DA, PFNA, and PFBS, with an adequate margin of safety, the Agency is proposing to use of the HI approach, a commonly used component-based mixture risk assessment method, for the MCLG for these four PFAS (USEPA, 2022). Consistent with the statutory requirement under 1412(b)(4)(A), establishing the MCLG for PFHxS, HFPO–DA, PFNA, and PFBS at an HI = 1.0 ensures that MCLG is set at a level where there are no known or anticipated adverse effect on the health of persons and ensuring an adequate margin of safety.

VI. Maximum Contaminant Level

Under section 1412(b)(4)(B) of SDWA, EPA must generally establish an enforceable MCL as close to the MCLG as is feasible, taking costs into consideration. The Agency evaluates feasibility according to several factors including the availability of analytical methods capable of measuring the targeted compounds in drinking water and examining available treatment technologies capable of contaminant removal examined under laboratory and field conditions.

A. PFOA and PFOS

The Agency evaluated available analytical methods to determine the lowest concentration at which PFOA and PFOS can reliably be measured in finished drinking water. There are two analytical methods approved by EPA for analyzing PFAS regulated under this proposed rule, USEPA Methods 537.1 and 533. In this evaluation, EPA determined that 4.0 ppt is the lowest concentration that PFOA and PFOS can be reliably quantified within specific limits of precision and accuracy during routine laboratory operating conditions. EPA has historically called this level the ''practical quantitation level,'' also known as a PQL (USEPA, 1987). Under UCMR5, EPA published MRLs of 4.0 ppt each for PFOA and PFOS (USEPA, 2022g). As described in the UCMR 5 rulemaking, this reporting level is the minimum quantitation level that, with 95 percent confidence, can be achieved by capable analysts at 75 percent or more of the laboratories using a specified analytical method (*i.e.,* Method 533 and 537.1, discussed in more detail in section VIII of this preamble). Based on the multi-laboratory data acquired for the UCMR 5 rule, EPA has defined the PQL for PFOA and PFOS to be equal to the UCMR 5 MRL of 0.0000040 mg/L or 4.0 ppt. This quantitation level provides an allowance for the degree of measurement precision and accuracy that EPA estimates can be achieved across laboratories nationwide. Furthermore, the PQLs provide for consistency in data quality from a diverse group of laboratories across the country and provide routine performance goals that many laboratories must strive to achieve. The agency must have a high degree of confidence in the quantified result as it may compel utilities to make potentially costly compliance decisions in order to comply with the MCL. Please see section VIII of this preamble for more information on analytical methods for PFAS and a detailed discussion of the PQL and other levels below this quantitation level that may be appropriate for screening values.

EPA has promulgated and successfully implemented NPDWRs with MCLs equal to the contaminant PQLs. In 1987, EPA finalized the Phase I Volatile Organic Compounds (VOC) rule (USEPA, 1987), where the agency set the MCL at the PQL for benzene, carbon tetrachloride, p-dichlorobenzene, trichloroethylene, vinyl chloride, 1,1,1-trichloroethane, 1,1-dichloroethylene and 1,2-dichloroethane. In that rule, EPA set the PQL at a level consistent with what was then the ''general rule of five to ten times the [method detection limit] MDL.'' While some commenters at the time stated they believed implementation would be challenging, EPA notes that those rules have been

implemented successfully and provided an incentive for laboratories to improve analytical capabilities and reduce method quantitation and detection limits.

EPA requests comment on whether setting the MCL at the PQLs for PFOA and PFOS is similarly implementable and feasible. As in the 1987 rule, EPA recognizes that quantitation of the contaminants can be achieved between the MDL (*e.g.,* see Method 537.1, section 9.2.8) and the PQL, albeit not necessarily with the same precision and accuracy that is possible at and above the PQL. Measuring PFOA and PFOS results below the PQLs may not be achievable from all laboratories and may not have the same precision as higher-level measurements, nor does EPA believe it is appropriate to make potentially costly compliance decisions based on such lower-level measurements. Nonetheless, the ability to know that PFOA and PFOS may be present within a certain range at these low concentrations (*i.e.,* below the PQLs) can be used to inform decisions for already installed treatment (*e.g.,* a utility can evaluate when break though is most likely to occur or is imminent) and to judge appropriate monitoring frequency. In addition, further support for considering measurement levels below PQL, and the demonstrated capability of laboratories to support screening at these lower levels, was found within laboratory calibration standard data submitted as part of the UCMR 5 Laboratory Approval Program.[4] These data revealed that 49 of the 54 laboratories seeking EPA approval included a lowest PFAS calibration standard level at 1 ppt or lower, with the median lowest calibration level among all laboratories at 0.5 ppt. Therefore, for almost all laboratories, the proposed PQLs for PFOA and PFOS of 4.0 ppt are at least 4 times greater than the lowest calibration standard. This suggests the overwhelming majority of laboratories with the necessary instrumentation to support PFAS monitoring have the capability to provide screening measurement results above the proposed trigger level of ⅓ of the MCL (*i.e.,* 1.3 ppt for PFOS or PFOS). Hence, a utility may use the lower-level measurements as a warning that they may be nearing the PFOA and PFOS MCLs of 4.0 ppt prior to exceeding them and can make informed treatment decisions about managing their systems (*e.g.,* replacing GAC). For more information on the proposed trigger level, please see sections VIII and IX of this preamble. EPA requests comment on implementation challenges and considerations for setting the MCL at the PQLs for PFOA and PFOS, including on the costs and benefits related to this approach.

Additionally, consistent with EPA's SMF for many drinking water contaminants, EPA is proposing to utilize a running annual average approach to calculate compliance with this proposed rule. As a result, a single occurrence of PFOA or PFOS that is slightly above the proposed MCLs would not result in an MCL violation, assuming other quarterly samples remain below the MCLs. For example, if a system had a sample result of PFOA at 5.0 ppt and the remaining quarter sample results were all 2.0 ppt each, the system would not be violation. In addition, when calculating the running annual averages, if a sample result is less than the PQL for the monitored PFAS, EPA is also proposing to use zero to calculate the average for compliance purposes. For further discussion on monitoring and compliance, please see section IX of this preamble. Hence, while EPA believes utilities should endeavor for all samples to remain below the MCL, the proposed rule allows for temporal fluctuations in concentrations that may occur because of unexpected events such as premature PFOA and PFOS breakthrough or temporary increased source water concentrations. This extra buffer provides the utilities additional operational safety margins in the event of minor management or treatment issues. As an alternative, and as described in more detail in section IX of this preamble, when calculating the running annual averages, rather than using zero for sample results less than the PQL, EPA seeks comment on instead using the proposed rule trigger levels (*i.e.,* 1.3 ppt for PFOA and PFOS) in the case where PFAS are detected but below their proposed PQLs. This would have the potential to be more protective in the long run than counting sampling results below the PQL as zero and provide PWSs greater forewarning that their results may exceed the MCLs.

EPA anticipates there would not be sufficient laboratory capacity if the quantitation level were set at a level below 4.0 ppt. The rigorous laboratory certification and quality assurance/quality control (QA/QC) procedures could limit the number of laboratories that can achieve lower quantitation levels and many water systems would not be able to secure the services of laboratories that are capable of consistently providing precise and accurate quantitation of concentrations of PFOA and PFOS at levels lower than 4.0 ppt. The Agency has determined that high confidence in the accuracy of analytical results is necessary to demonstrate that any treatment technologies are effectively reducing levels of PFOA and PFOS to the levels as close as feasible to the proposed MCLGs for these contaminants. To achieve this intended purpose, the Agency is proposing to establish the MCLs for PFOA and PFOS at this PQL of 4.0 ppt.

While EPA anticipates potential laboratory capacity issues if the Agency were to propose MCLs below 4.0 ppt, EPA believes there will be sufficient laboratory capacity with the MCLs set at 4.0 ppt. As of September 2022, as a part of the UCMR 5 laboratory approval program, fifty-four (54) laboratories submitted applications to EPA for approval to analyze PFOA and PFOS to quantification limits of 4.0 ppt using EPA Method 533. Each of these 54 laboratories had acquired the analytical equipment necessary to run both EPA Method 533 and 537.1 and laboratories are required to achieve and demonstrate they can meet the PFOA and PFOS PQLs of 4.0 ppt to receive EPA Method 533 approval. EPA received strong interest from a significant number of laboratories seeking UCMR 5 laboratory approval, demonstrating there is effective laboratory capacity to support the program. The commercial market for PFAS analysis is likely to remain strong and, in fact, grow as more laboratories develop the technical capability further enhancing lab capacity to analyze PFAS for drinking water rule compliance purposes. The various State regulatory monitoring programs established in recent years for PFAS incorporate laboratory certification/accreditation programs that further elevate commercial laboratory interest and expand laboratory capacity. Additionally, because EPA is proposing to allow the use of existing PFAS monitoring data to meet the initial monitoring requirements of this proposed rule where available (see section IX of this preamble for further discussion), EPA anticipates the sudden spike in laboratory demands that could

[4] Instrument calibration for the approved methods is defined by analyzing a set of at least five standard solutions spanning a 20-fold concentration range, in which the lowest concentration must be at or below the quantitation level. Calibration standards below the quantitation level must meet defined precision requirements. The resulting calibration curve is validated by measuring standard solutions of known concentration prepared from commercially available reference materials. Calibration is confirmed at multiple points, including by performing an initial calibration and initial demonstration of capability prior to analysis, through the addition of internal and surrogate standards, and by incorporating continuous calibration check samples into the analysis routine.

otherwise accompany a proposed rule such as this will instead be distributed during the initial rule implementation timeframe. EPA requests comment on the underlying assumptions that sufficient laboratory capacity will be available with the MCLs set at 4.0 ppt; that demand will be sufficiently distributed during rule implementation to allow for laboratory capacity; and on the cost estimates related to these assumptions.

SDWA 1412(b)(4)(d) defines feasibility as, ''feasible with the use of the best technology, treatment techniques and other means which the Administrator finds, after examination for efficacy under field conditions and not solely under laboratory conditions, are available (taking cost into consideration).'' Further, Section 1412(b)(4)(E) of SDWA requires identification of technologies, referred to as best available technologies (BATs) ''which the Administrator finds to be feasible for purposes of meeting [the MCL].'' As described in section XI.A. of this preamble, the Agency identifies the BATs as those meeting certain criteria including: (1) The capability of a high removal efficiency; (2) a history of full-scale operation; (3) general geographic applicability; (4) reasonable cost based on large and metropolitan water systems; (5) reasonable service life; (6) compatibility with other water treatment processes; and (7) the ability to bring all the water in a system into compliance. In section XI of this preamble, EPA evaluated treatment technologies for the removal of PFOA and PFOS that would meet these criteria and determined there are multiple technologies (*i.e.,* GAC, AIX, RO, and NF) that are both available and have reliably demonstrated PFAS removal efficiencies that may exceed >99 percent and can achieve concentrations less than the proposed MCLs for PFOA and PFOS. Based on its evaluation, the Agency proposes to determine that it is feasible to treat PFOA and PFOS to 4.0 ppt because multiple treatment technologies are effective and available and there are methods available to reliably quantify PFOA and PFOS at 4.0 ppt. For more information about treatment technologies, please see section XI of this preamble. For more information about available analytical methods, please see section VIII of this preamble.

For purposes of its proposed feasibility determination, EPA also considered costs when setting the MCLs for PFOA and PFOS at 4.0 ppt and that analysis supports a finding that 4.0 ppt represents the level of what is ''feasible'' under the standard of Section 1412(b)(4)(D). Based on legislative history (A Legislative History of the Safe Drinking Water Act, Committee Print, 97th Cong., 2d Sess. (1982) at 550), EPA interprets ''taking cost into consideration'' in Section 1412(b)(4)(D) to be limited to ''reasonable cost based on large and metropolitan water systems.'' EPA has determined that 4.0 ppt represents what is achievable for BATs given the standard of ''reasonable cost based on large and metropolitan water systems.'' As discussed in section XII of this preamble, EPA evaluated quantifiable and nonquantifiable costs for MCLs for PFOA and PFOS at 4.0, 5.0, and 10.0 ppt. As part of that evaluation, EPA considered capital, operational, administrative, monitoring, and other costs. In addition to estimating national level costs associated with the proposed rule and potential regulatory alternatives, EPA assessed PWS level costs, costs to small systems, and costs at the household level. For more information about EPA's cost estimates, please see *Best Available Technologies and Small System Compliance Technologies Per- and Polyfluoroalkyl Substances (PFAS) in Drinking Water* (USEPA, 2023g). EPA considered these cost analyses, in addition to analytical methods, quantitation levels, and treatment technologies in coming to its proposed finding that MCLs of 4.0 ppt for PFOA and PFOS represents levels that are as close as feasible to the MCLGs. EPA seeks comment on its PFOA and PFOS evaluation of feasibility for the proposal, including analytical measurement and treatment capability, as well as reasonable costs, as defined by SDWA.

B. PFAS Hazard Index: PFHxS, HFPO–DA, PFNA, and PFBS

To protect against the potential for dose additive health impacts from likely multi-chemical exposures when they occur as mixtures in drinking water, EPA is proposing an MCL for mixtures of PFHxS, HFPO–DA, PFNA, and PFBS expressed as an HI. An HI is the sum of HQs from multiple substances. HQs are the ratio of potential exposure to a substance and the level at which no health effects are expected. EPA is proposing the MCL for mixtures of PFHxS, HFPO–DA, PFNA, and PFBS as equal to the MCLG: as proposed, the HI must be equal to or less than 1.0. SDWA section 1401(3) defines an MCL as the ''maximum permissible level of a contaminant in water which is delivered to any user of a public water system.'' This approach, as proposed, sets a permissible level for the contaminant mixture (*i.e.,* a resulting PFAS mixture HI greater than 1.0 indicates an exceedance of the health protective level and indicates potential human health risk for noncancer effects from the PFAS mixture in water). If there is only one contaminant PFAS present, the HI approach in practice also sets a permissible level for the individual contaminant through the use of its respective HBWC (see example and discussion in section V.C2 of this preamble). As discussed below in this section (section VI.D. of this preamble) and in section XIII of this preamble, the Agency is also inviting comment on whether establishing a traditional MCLG and MCL for PFHxS, HFPO–DA, PFNA, and PFBS instead of or in addition to the HI approach would change public health protection, improve clarity for the rule, or change costs.

EPA asked the SAB for advice on using an HI approach as an option for PFAS mixture assessment under an assumption of dose additivity. Consistent with EPA Guidance (*e.g.,* USEPA, 2000a; USEPA, 1989) the HI is used here as a decision aid, and determination of dose additivity among chemicals is relaxed from the level of common MOA to common target organ(s)/health outcome(s). Per SAB's suggestion, EPA outlines here the validity of, and procedures for, calculating the HI given a mixture such as this one that includes PFAS with varying levels of available information across health outcomes.

Consistent with advice from the SAB, EPA considers it an appropriately health protective approach to assume dose additivity for PFAS co-occurring in mixtures as they share similar profiles of health effect domains (*e.g.,* liver, thyroid, developmental, etc.). EPA's analysis of finished water monitoring data demonstrates that PFAS often have a substantial likelihood to co-occur in mixtures (see section III.D of this preamble). While PFAS are well documented to co-occur, the exact chemical composition is often site-specific in nature (*i.e.,* each location of PFAS mixture is influenced by different environmental point and diffuse sources that results in a unique PFAS profile) (Banzhaf et al., 2017). Yet, EPA finds that PFHxS, HFPO-DA, PFNA, and PFBS often co-occur in mixtures in drinking water, including with other PFAS (USEPA, 2023e). To protect against the potential for dose additive health impacts from likely multi-chemical exposures of PFHxS, HFPO-DA, PFNA, and PFBS when they occur as mixtures in drinking water, the Agency is proposing to use the HI approach. Both EPA's recent PFAS mixture's framework (USEPA, 2023d), and SAB's review of the prior draft of

this document discuss the strengths and limitations associated with using an HI approach as the basis for evaluating potential health risks associated with exposure to mixtures of PFAS, and consideration as a metric to inform health-based decision-making for regulatory purposes (USEPA, 2022a). For a full discussion of the strengths and limitations identified during SAB's review and how EPA responded, please see USEPA, 2022a and 2023f. The HI approach is used regularly by EPA (and States) to inform potential health risks of chemical mixtures associated with contaminated sites/locations under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)/the Superfund Amendments and Reauthorization Act (SARA); as such, the application of the HI approach under a regulatory purview is not novel for the Agency though this is the first use of an HI approach for a SDWA National Primary Drinking Water Regulation.

EPA is proposing an MCL based on a HI composed of the four PFAS for which there are validated EPA methods for measurement and treatment, evidence of co-occurrence, the potential for similar health effects, and the availability of finalized peer reviewed toxicity values to use in generating the HI. For this proposal, those PFAS are PFHxS, HFPO-DA, PFNA, and PFBS. The MCL for mixtures of PFHxS, HFPO-DA, PFNA, and PFBS would be an HI = 1.0. In this proposal, the HBWCs that EPA uses to calculate the HI are proposed to be 9.0 ppt for PFHxS; 10.0 ppt for HFPO-DA; 10.0 ppt for PFNA; and 2000 ppt for PFBS (USEPA, 2023a). To calculate the proposed HI, regulated PWSs would be required to monitor to determine the concentrations of PFHxS, HFPO-DA, PFNA, and PFBS in their finished drinking water. See section IX of this preamble for proposed requirements related to monitoring and determining compliance. See equation below for calculation of the PFHxS, HFPO-DA, PFNA, and PFBS HI MCL:

$$HI\ MCL = \left(\frac{[HFPO-DA_{water}]}{[10\ ng/L]}\right) + \left(\frac{[PFBS_{water}]}{[2000\ ng/L]}\right) + \left(\frac{[PFNA_{water}]}{[10\ ng/L]}\right) + \left(\frac{[PFHxS_{water}]}{[9\ ng/L]}\right)$$

Where:

$HFPO\text{-}DA_{water}$ = monitored concentration of HFPO-DA;
$PFBS_{water}$ = monitored concentration of PFBS;
$PFNA_{water}$ = monitored concentration of PFNA; and
$PFHxS_{water}$ = monitored concentration of PFHxS

See discussion in section IV of this preamble above for how EPA derived these values for these contaminants.

As described in section VI.A. of this preamble for PFOA and PFOS, the Agency has similarly considered feasibility as defined by SDWA 1412(b)(4)(D) for PFHxS, HFPO-DA, PFNA, and PFBS. The Agency has determined that there are validated analytical methods that can measure below the HBWC for each of these PFAS. Additionally, as discussed above, the Agency proposes to determine that it is feasible to treat each of these PFAS to below their PQL (between 3.0–5.0 ppt) and it is feasible to treat these PFAS to below their PQLs individually and as a group. When identifying BATs, EPA evaluated the same factors as defined previously in Section VI.A. and in Section XI.A. of this preamble and has found the same technologies identified for PFOA and PFOS are also both available and have reliably demonstrated PFAS removal efficiencies that may exceed >99 percent and achieve concentrations less than the proposed HI MCL for PFHxS, HFPO-DA, PFNA, and PFBS.

As described in section VI.A. of this preamble for PFOA and PFOS, the Agency similarly considered costs as part of its proposed feasibility determination for PFHxS, HFPO–DA, PFNA, and PFBS and setting the HI MCL at 1.0. EPA's analysis supports a finding that an HI of 1.0 is ''feasible'' under standard of SDWA 1412(b)(4)(D) because it is achievable for BATs given the standard of ''reasonable cost based on large and metropolitan water systems.'' For more information about EPA's cost estimates, please see *Best Available Technologies and Small System Compliance Technologies Per- and Polyfluoroalkyl Substances (PFAS) in Drinking Water* (USEPA, 2023g; USEPA, 2023h). EPA considered these cost analyses, in addition to analytical methods, quantitation levels, and treatment technologies in coming to its proposal that an HI MCL of 1.0 for PFHxS, HFPO–DA, PFNA, and PFBS represents a level that is as close as feasible to the MCLG. EPA seeks comment on its evaluation of feasibility for the proposed HI MCL finding, including analytical measurement and treatment capability, as well as reasonable costs, as defined by SDWA.

C. Reducing Public Health Risk by Protecting Against Dose Additive Noncancer Health Effects From PFAS

As described above, PFOA and PFOS are demonstrated to have the potential for adverse health effects at low levels of exposure. The level at which no known or anticipated adverse effects on the health of persons would occur is well below current analytical quantitation level for PFOA and PFOS. To ensure maximum public health protection for these contaminants, the statute generally requires that exposure be driven to the lowest feasible concentration.

Because of the analytical limitations discussed in the preceding section VI.A of this preamble, EPA is not proposing to include PFOA and PFOS in the HI. The only feasible way to represent PFOA and PFOS in the HI approach would be to only consider values for PFOA and PFOS at or above the PQL of 4.0 ppt. As a result, any measured concentration above 4.0 ppt for PFOA and PFOS would result in an exceedance of the HI of 1.0. Therefore, regulating PFOA and PFOS under a HI approach would not add any meaningful health protection over setting an individual MCL for these PFAS. Additionally, EPA believes that adding PFOA or PFOS to the HI could increase potential compliance challenges with the rule as there could be confusion created by how to consider screening level values above detection but below quantitation (see additional discussion in section VIII of the preamble for discussion on screening and trigger levels). Therefore, EPA is proposing to set MCLs for PFOA and PFOS individually and not part of the HI.

Some PFAS (such as PFHxS, HFPO–DA, PFNA, and PFBS) have HBWCs at thresholds higher than current analytical quantitation levels. As a result of assuming dose-additivity, PFHxS, HFPO–DA, PFNA, and PFBS

may have individual detectable or quantifiable concentrations below their individual HBWCs, but their combined concentrations can be above levels of health concern. As proposed, the HI MCL provides a protective approach to avoiding these potential health risks associated with mixtures of PFAS that are below the public health goals individually, yet exceed the PFAS mixture limit (*i.e.,* HI MCL = 1.0). Separating PFOA and PFOS away from a HI approach is not meant to ignore the potential dose additive health impacts for these compounds in mixtures. As described in the preceding paragraph, EPA is not including PFOA and PFOS as part of the HI approach because the Agency believes doing so would not add meaningful health protection over setting an individual MCL for these PFAS.

EPA recognizes that some PFAS such as PFOA, PFOS, and PFNA have been voluntarily phased out of production and replaced in the United States so their relative concentrations in source waters may decrease over time. However, other PFAS that have been shown to also cause adverse health effects (*e.g.,* perfluorobutanoic acid [PFBA], PFBS, HFPO–DA) may increase in concentration as their production, use, and discharges into source water continues. The HI framework is designed to inform protection of human health for any source water PFAS, with available human health assessment values, still in production and use. Under the HI approach, additional PFAS can be added over time once more information on health effects, analytics, exposure and/or treatment becomes available, and merits additional regulation as determined by EPA. As such, this approach provides a framework for Federal and State public health agencies to consider using to address other PFAS in the future as needed.

D. Regulatory Alternatives

As discussed in section VI.A of this preamble above, EPA proposes to determine that it is feasible to set MCLs for PFOA and PFOS at 4.0 ppt each and that the level is as close as feasible to the MCLGs. As discussed in Section VI.B of this preamble, EPA proposes to determine it is feasible to set an MCL for mixtures of PFHxS, HFPO–DA, PFNA, and PFBS as a HI = 1.0 which is the same level as the MCLG.

In section XIII of this preamble, the HRRCA section of this proposal, EPA is presenting estimated costs and benefits of regulatory alternatives for PFOA and PFOS of MCLs at 4.0, 5.0 ppt and 10.0 ppt. Quantified costs and benefits for the proposed option and alternative options considered are summarized in section XIII.H of this preamble, specifically tables 66–69. Tables 70–71 summarize the non-quantified benefits and costs and assess the potential impact of non-quantifiable benefits and costs on the overall benefits and costs estimate. Establishing only MCLs at 4.0 ppt for PFOA and PFOS instead of the proposed rule (MCLs at 4.0 ppt for PFOA and PFOS and the HI) would result in a reduction of $16 million in quantified costs and $17 million in quantified benefits at the 3% discount level and $27 million in quantified costs and $13 million in quantified benefits at the 7% discount level. Establishing MCLs at 5.0 ppt for PFOA and PFOS instead of 4.0 ppt would result in a reduction of $145 million in quantified costs and $169 million in quantified benefits at the 3% discount level and $235 million in quantified costs and $122 million in quantified benefits at the 7% discount level. Establishing MCLs at 10.0 ppt for PFOA and PFOS instead of 5.0 ppt would result in a reduction of $318 million in quantified costs and $462 million in quantified benefits at the 3% discount level and $511 million in quantified costs and $337 million in quantified benefits at the 7% discount level. EPA notes that there would also be commensurate reduction in the nonquantifiable benefits and costs among these options. As discussed elsewhere in this proposal, the nonquantifiable benefits are anticipated to be significant. EPA evaluated these regulatory alternatives in its HRRCA, discussed in Section XIII of this preamble below and is requesting comment on these alternatives.

EPA considered an MCL of 5.0 ppt for PFOA and PFOS because it is 25 percent above the PQL of 4.0 ppt. A commenter in EPA's outreach consultations for this regulation suggested the Agency consider a buffer of approximately 20 percent if the MCL is close to the quantitation level because water systems operate with a margin of safety and plan for performance that maintains water quality below quantitation levels. Therefore, in this commenter's opinion, having an increased buffer between the PQL and the MCL may allow utilities to manage treatment technology performance more efficiently because utilities typically aim to achieve lower than the MCL to avoid a violation. With the MCL at the PQL, the commenter believes that utilities would not have the early warning that they may exceed the MCL prior to doing so. EPA disagrees that utilities would not have early warning prior to exceeding the MCL; see discussion above in section VI.A of this preamble for more information. For results between the detection limit and the PQL, EPA has determined that utilities would be able to reliably conclude analyte presence, though this detection is less precise regarding specific concentration. Knowledge regarding the presence of PFOA and PFAS at concentrations below PQLs can inform decisions related to monitoring frequency and existing treatment. EPA requests comment on this approach.

EPA also considered the MCL of 10.0 ppt to evaluate the national costs and benefits and whether the expected reduction in costs would change EPA's determination of the level at which the benefits would justify the costs. See SDWA Section 1412(b)(6)(A). The Agency notes that this regulatory alternative level is consistent with State-enacted MCLs for certain PFAS (NYDOH, 2020). Because there is significant expected occurrence of PFOA and PFOS between 4.0 ppt and 10.0 ppt, raising the MCL from 4.0 to 10.0 would be expected to significantly decrease the number of utilities that must take action to manage PFOA and PFOS concentrations in their finished drinking water. However, it would also result in millions of Americans continuing to be exposed to levels that have the potential for harmful levels of PFOA and PFOS that can feasibly be removed through treatment, thereby decreasing the quantified and non-quantified benefits delivered by this proposed regulation. Furthermore, since EPA has found proposed PFOA and PFOS MCLs of 4.0 ppt to be feasible, the Agency must set the MCL as close to the MCLG as feasible, the Administrator determined the costs were justified by the benefits at a PFOA and PFOS proposed MCL at 4.0 (see discussion in section XIII of this preamble), and setting the PFOA and PFOS MCLs at 10.0 ppt would not reduce PFOA and PFOS exposure risks for millions of Americans to the extent feasible, EPA preliminarily determined that proposing PFOA and PFOS MCLs at 10.0 ppt would not be appropriate or justifiable under the SDWA statutory criteria.

EPA also considered the traditional approach of establishing individual MCLGs and MCLs for PFHxS, HFPO–DA, PFNA, and PFBS in lieu of or in addition to separate rule language for the HI approach. As noted earlier, this action includes a preliminary determination to regulate these additional PFAS and their mixtures. EPA's proposed HI approach addresses both the particular PFAS and their mixtures. If EPA does not finalize a

regulatory determination for mixtures of these PFAS, then a more traditional approach may be warranted. Under this alternative, the proposed MCLG and MCL for PFHxS would be 9.0 ppt; for HFPO–DA the MCLG and MCL would be 10 ppt; for PFNA the MCLG and MCL would be 10 ppt; and for PFBS the MCLG and MCL would be 2000 ppt (*i.e.,* 2.0x103 or 2.0e+3). As discussed in section XIII of this preamble, EPA has not separately presented changes in quantified costs and benefits for these approaches. If EPA adds individual MCLs in addition to using the HI approach, EPA anticipates there will be no change in costs and benefits relative to the proposed rule (*i.e.,* the same number of systems will incur identical costs to the proposed option and the same benefits will be realized). EPA has not separately quantified the benefits and costs for the approach to regulate PFHxS, PFNA, PFBS, and HFPO–DA with individual MCLs instead of the HI. However, EPA expects both the costs and benefits would be reduced under this approach as fewer systems may be triggered into treatment and its associated costs. Additionally, systems that exceed one or more of the individual MCLs will treat to a less stringent and public health-protective standard. Furthermore, while EPA recognized that regulating these PFAS with individual MCLs and MCLGs might be simpler to implement for some states or operators, if EPA were to regulate these PFAS individually and not under the HI MCL approach, it would not provide equivalent protection against potential dose additive impacts for these PFAS, nor would it establish a framework to consider potential dose additive impacts for future PFAS components or groups as EPA develops a better understanding of the adverse health effects of other PFAS. The Agency is requesting comment on whether establishing a traditional MCLG and MCL for PFHxS, HFPO–DA, PFNA, and PFBS instead of or in addition to the HI approach would change public health protection, improve clarity of the rule, or change costs.

EPA also considered an alternative regulatory construct of establishing both MCLGs and MCLs for these four PFAS in addition to separate rule language for the HI MCL. Hence, these four PFAS would expressly be subject to two MCLs: the individual MCLs and the HI MCL for the mixture. However, this approach has the potential to function the same as the proposed rule because a system cannot have MCL violations of an individually regulated PFAS without also exceeding the HI MCL. EPA considered this approach because it may improve the ability to communicate about PFAS risks with PWSs and the public, while still providing the important benefit of protection against dose additive impacts from these PFAS with the HI approach, as well as building a potential framework for considering future PFAS regulation. Moreover, this approach may improve the ability to communicate about PFAS concentrations and their relative importance with operators and the public although there may be challenges in risk communication with respect to those small number of facilities that would not exceed an individual MCL but would exceed the HI MCL.

While EPA evaluated these regulatory alternatives, EPA proposal is based upon its proposed finding that an MCL of 4.0 ppt for PFOA and PFOS and an HI of 1.0 for PFHxS, HFPO–DA, PFNA, and PFBS are feasible because treatment technologies are available that treat to below these levels and there are analytical methods that can reliably quantify at these levels (See discussion above in Section VI.A and Section VIII of this preamble). Additionally, EPA determined that the benefits justify the costs with the current rule's proposed MCLs of 4.0 ppt and an HI of 1.0 for PFHxS, HFPO–DA, PFNA, and PFBS.

When proposing an MCL, EPA must publish, and seek public comment on, the HRRCA for the proposed MCL and each alternative standard considered under paragraphs 5 and 6(a) of Section 1412(b) (SDWA Section 1412(b)(3)(C)(i)), including:

- the quantifiable and nonquantifiable health risk reduction benefits attributable to MCL compliance;
- the quantifiable and nonquantifiable health risk reduction benefits of reduced exposure to co-occurring contaminants attributable to MCL compliance;
- the quantifiable and nonquantifiable costs of MCL compliance including monitoring, treatment, and other costs;
- the incremental costs and benefits of each alternative MCL;
- the effects of the contaminant on the general population and sensitive subpopulations likely to be at greater risk of exposure; and

any adverse health risks posed by compliance; and

- other factors such as data quality and uncertainty.

EPA provides this information in section XIII in this preamble. EPA must base its action on the best available, peer-reviewed science and supporting studies, taking into consideration the quality of the information and the uncertainties in the benefit-cost analysis (SDWA Section 1412(b)(3)). The following sections, as well as the health effects discussion in sections IV and V of this preamble document the science and studies that EPA relied upon to develop estimates of benefits and costs and understand the impact of uncertainty on the Agency's analysis.

E. MCL-Specific Requests for Comment

EPA specifically requests comment on its proposal to set MCLs at 4.0 ppt for PFOA and PFOS and whether 4.0 ppt is the lowest PQL that can be achieved by laboratories nationwide. EPA also requests comment on implementation challenges and considerations for setting the MCL at the PQLs for PFOA and PFOS. EPA requests comment on its evaluation of feasibility under SDWA for the proposed PFOA and PFOS MCLs and the proposed HI MCL. EPA also requests comment on using an HI approach for PFHxS, HFPO–DA, PFNA, and PFBS. Additionally, EPA requests comment on its decision to establish stand-alone MCLs for PFOA and PFOS in lieu of including them in the HI approach. Finally, EPA specifically requests comment on whether establishing a traditional MCLG and MCL for each of the following: PFHxS, HFPO–DA, PFNA, and PFBS instead of or in addition to the HI approach would change public health protection or improve clarity of the rule; or change anticipated costs.

VII. Occurrence

EPA relied on multiple data sources, including UCMR 3 and state finished water data to evaluate the occurrence and probability of co-occurrence of PFOA, PFOS, PFHxS, HFPO–DA, PFNA, and PFBS. EPA also incorporated both the UCMR 3 and some state data into a Bayesian hierarchical model which supported exposure estimates for select PFAS at lower levels than were measured under UCMR 3. EPA has utilized similar statistical approaches in past regulatory actions to inform its decision making, particularly where a contaminant's occurrence is infrequent or at low concentrations (USEPA, 2006b). The specific modeling framework used to inform this regulatory action is based on the peer-reviewed model published in Cadwallader et al. (2022). Collectively, these data and the occurrence model informed estimates of the number of

water systems (and associated population) expected to be exposed to levels of PFOA and PFOS which would potentially exceed the proposed and alternative MCLs, and to levels of PFHxS, HFPO–DA, PFNA, and PFBS that would potentially exceed the HI.

EPA relied on the UCMR 3 as the primary source of nationwide occurrence data to inform the occurrence model's exposure estimates for four PFAS: PFOA, PFOS, perfluoroheptanoic acid (PFHpA), and PFHxS. Additionally, as described in the final regulatory determination for PFOA and PFOS (USEPA, 2021d), EPA has also considered and evaluated publicly-available state finished water PFAS monitoring data, including data on PFOA, PFOS, PFHxS, HFPO–DA, PFNA, and PFBS.

A. UCMR 3

As discussed in section III.B. of this preamble, UCMR 3 monitoring occurred between 2013 and 2015 and is currently the best nationally representative finished water dataset for any PFAS, including PFOA, PFOS, PFNA, PFBS, and PFHxS. Under UCMR 3, 36,972 samples from 4,920 PWSs were analyzed for these five PFAS.

PFOA was found above the UCMR 3 MRL (20 ppt) in 379 samples at 117 systems serving a population of approximately 7.6 million people located in 28 states, tribes, or U.S. territories. PFOS was found in 292 samples at 95 systems above the UCMR 3 MRL (40 ppt). These systems serve a population of approximately 10.4 million people located in 28 states, tribes, or U.S. territories. PFHxS was found above the UCMR 3 MRL (30 ppt) in 207 samples at 55 systems that serve a population of approximately 5.7 million located in 25 states, tribes, and U.S. territories. PFBS was found in 19 samples at 8 systems above the UCMR 3 MRL (90 ppt). These systems serve a population of approximately 350,000 people located in 5 states, tribes, and U.S. territories. Lastly, PFNA was found above the UCMR 3 MRL (20 ppt) in 19 samples at 14 systems serving a population of approximately 526,000 people located in 7 states, tribes, and U.S. territories.

B. State Drinking Water Data

As discussed in section III.B of this preamble, the Agency has supplemented its UCMR 3 data with more recent data collected by states who have made their data publicly available. In general, the large majority of these more recent state data were collected using newer EPA-approved analytical methods and state results reflect lower reporting limits than those in the UCMR 3. State results show continued occurrence of PFOA, PFOS, PFHxS, PFBS, and PFNA in multiple geographic locations. These data also show these PFAS occur at lower concentrations and significantly greater frequencies than were measured under the UCMR 3. Furthermore, these data include results for more PFAS than were included in the UCMR 3, including HFPO–DA.

EPA evaluated publicly available monitoring data from the following 23 states: Alabama, Arizona, California, Colorado, Delaware, George, Illinois, Kentucky, Maine, Massachusetts, Maryland, Michigan, Missouri, New Hampshire, New Mexico, New Jersey, North Carolina, North Dakota, Ohio, Pennsylvania, Rhode Island, South Carolina, and Vermont. The data EPA used in its analyses were collected from public state websites through August 2021, but represent sampling conducted on or before May 2021.

The available data are varied in terms of quantity as well as coverage, and some are from targeted sampling efforts (*i.e.,* monitoring in areas of known or potential PFAS contamination) so may not be representative of levels found in all PWSs within the state or represent occurrence in other states. EPA further refined this dataset based on representativeness and reporting limitations, resulting in detailed technical analyses using a subset of the available state data (*i.e.,* all 23 states' data were not included within the detailed technical analyses). USEPA (2023e) presents a comprehensive discussion of all the available state PFAS drinking water occurrence data.

Tables 5 and 6 in this section demonstrate the number and percent of samples with PFOA and PFOS state reported detections, and the number and percent of monitored systems with PFOA and PFOS state reported detections, respectively, for the non-targeted state finished water monitoring data. Section III.B. of this preamble describes the state reported finished water occurrence data for PFHxS, HFPO–DA, PFNA, and PFBS data.

Different states utilized various reporting thresholds when presenting their data, and for some states there were no clearly defined limits. Further, the limits often varied within the data for each state depending on the specific analyte, as well as the laboratory analyzing the data. In some cases, states reported data at concentrations below EPA's proposed rule trigger level and/or PQLs in this document. However, to present the best available occurrence information, EPA collected and evaluated the data based on the information as reported directly by the states. When conducting data analyses, EPA incorporated individual state-specific reporting limits where possible. Specific details on state data reporting thresholds are available in USEPA (2023e).

TABLE 5—NON-TARGETED STATE PFOS AND PFOA FINISHED WATER DATA—SUMMARY OF SAMPLES WITH STATE REPORTED DETECTIONS [1]

State	PFOS samples with state reported detections	PFOS state reported sample percent detection	PFOA samples with state reported detections	PFOA state reported sample percent detections
Alabama [2]	140	N/A	80	N/A
Colorado	60	10.3	54	9.3
Illinois	55	5.2	56	5.3
Kentucky	33	40.7	24	29.6
Massachusetts	441	49.1	506	66.5
Michigan	70	2.5	103	3.6
New Hampshire	495	27.1	1,010	55.3
New Jersey	3,512	37.2	4,379	46.4
North Dakota	0	0.0	0	0.0
Ohio	93	4.9	93	4.9
South Carolina	88	57.9	82	53.9

TABLE 5—NON-TARGETED STATE PFOS AND PFOA FINISHED WATER DATA—SUMMARY OF SAMPLES WITH STATE REPORTED DETECTIONS [1]—Continued

State	PFOS samples with state reported detections	PFOS state reported sample percent detection	PFOA samples with state reported detections	PFOA state reported sample percent detections
Vermont	87	6.9	109	8.7

Notes:
[1] Detections determined by individual state reported limits which are not defined consistently across all states.
[2] Only reported detections.

TABLE 6—NON-TARGETED STATE PFOS AND PFOA FINISHED WATER DATA—SUMMARY OF MONITORED SYSTEMS WITH STATE REPORTED DETECTIONS [1]

State	PFOS monitored systems with state reported detections	PFOS state reported monitored system percent detection	PFOA monitored systems with state reported detections	PFOA state reported monitored system percent detections
Alabama [2]	49	N/A	28	N/A
Colorado	50	12.6	45	11.3
Illinois	36	5.5	32	4.9
Kentucky	33	40.7	24	29.6
Massachusetts	107	47.3	126	55.5
Michigan	55	2.6	82	3.8
New Hampshire	189	33.8	310	55.4
New Jersey	494	45.9	564	52.4
North Dakota	0	0.0	0	0.0
Ohio	29	2.0	32	2.2
South Carolina	42	82.4	40	78.4
Vermont	35	6.3	44	7.9

Notes:
[1] Detections determined by individual state reported limits which are not defined consistently across all states.
[2] Only reported detections.

As illustrated in Tables 5 and 6, there is a wide range in PFOA and PFOS results between states, however in nearly half of states that conducted non-targeted monitoring, more than 25 percent of the monitored systems found PFOA and/or PFOS. Additionally, considering all states in Tables 5 and 6, PFOA detected concentrations ranged from 0.51 to 153 ppt with a range of median detected concentrations from 1.98 to 9.4 ppt, and PFOS detected concentrations ranged from 0.5 to 350 ppt with a range of median detected concentrations from 3 to 11.9 ppt.

Monitoring data for PFOA and PFOS from states that conducted targeted sampling efforts, including California, Maryland, and Pennsylvania, demonstrate results consistent with the non-targeted state monitoring. For example, in Pennsylvania, 26.3 and 24.9 percent of monitored systems found PFOA and PFOS, respectively, with reported concentrations of PFOA ranging from 1.7 to 59.6 ppt and PFOS ranging from 1.8 to 94 ppt. California reported 26.2 and 29.9 percent of monitored systems found PFOA and PFOS, respectively, including reported concentrations of PFOA ranging from 0.9 to 120 ppt and reported concentrations of PFOS from 0.4 to 250 ppt. In Maryland, PFOA and PFOS were found in 57.6 and 39.4 percent of systems monitored, respectively, with reported concentrations of PFOA ranging from 1.02 to 23.98 ppt and reported concentrations of PFOS ranging from 2.05 to 235 ppt.

As discussed above in section VI of this preamble, EPA is proposing individual MCLs of 4.0 ppt for PFOA and PFOS, and an HI level of 1.0 for PFHxS, PFNA, PFBS, and HFPO–DA. EPA also evaluated occurrence for the regulatory alternatives discussed in section VI of this preamble including alternative MCLs for PFOA and PFOS of 5.0 ppt and 10.0 ppt. Table 7, Table 8, and Table 9 demonstrate, based on available state data, the total state reported number and percentages of monitored systems that exceed these proposed and alternative MCL values across the non-targeted state finished water monitoring data.

TABLE 7—NON-TARGETED STATE PFOS AND PFOA FINISHED WATER DATA—SUMMARY OF MONITORED SYSTEMS WITH STATE REPORTED DETECTIONS [1] ≥4.0 ppt

State	PFOS monitored systems with state reported detections	PFOS state reported monitored systems percent detection	PFOA monitored systems with state reported detections	PFOA state reported monitored systems percent detection
Alabama [2]	37	N/A	19	N/A
Colorado	22	5.5	18	4.5
Illinois	17	2.6	16	2.5
Kentucky	4	4.9	9	11.1

TABLE 7—NON-TARGETED STATE PFOS AND PFOA FINISHED WATER DATA—SUMMARY OF MONITORED SYSTEMS WITH STATE REPORTED DETECTIONS [1] ≥4.0 ppt—Continued

State	PFOS monitored systems with state reported detections	PFOS state reported monitored systems percent detection	PFOA monitored systems with state reported detections	PFOA state reported monitored systems percent detection
Massachusetts	72	31.9	90	39.6
Michigan	15	0.7	24	1.1
New Hampshire	107	19.1	210	37.5
New Jersey	315	29.3	411	38.2
North Dakota	0	0.0	0	0.0
Ohio	29	2.0	32	2.2
South Carolina	27	52.9	30	58.8
Vermont	16	2.9	24	4.3

Notes:
[1] Detections determined by individual state reported limits which are not defined consistently across all states.
[2] Only reported detections.

TABLE 8—NON-TARGETED STATE PFOS AND PFOA FINISHED WATER DATA—SUMMARY OF MONITORED SYSTEMS WITH STATE REPORTED DETECTIONS [1] ≥5.0 ppt

State	PFOS monitored systems with state reported detections	PFOS state reported monitored systems percent detection	PFOA monitored systems with state reported detections	PFOA state reported monitored systems percent detection
Alabama [2]	31	N/A	15	N/A
Colorado	16	4.0	14	3.5
Illinois	12	1.8	11	1.7
Kentucky	3	3.7	4	4.9
Massachusetts	64	28.3	83	36.6
Michigan	12	0.6	17	0.8
New Hampshire	86	15.4	186	33.2
New Jersey	272	25.3	363	33.7
North Dakota	0	0.0	0	0.0
Ohio	29	2.0	32	2.2
South Carolina	25	49.0	25	49.0
Vermont	13	2.33	16	2.9

Notes:
[1] Detections determined by individual state reported limits which are not defined consistently across all states.
[2] Only reported detections.

TABLE 9—NON-TARGETED STATE PFOS AND PFOA FINISHED WATER DATA—SUMMARY OF MONITORED SYSTEMS WITH STATE REPORTED DETECTIONS [1] ≥10.0 ppt

State	PFOS monitored systems with state reported detections	PFOS state reported monitored systems percent detection	PFOA monitored systems with state reported detections	PFOA state reported monitored systems percent detection
Alabama [2]	23	N/A	8	N/A
Colorado	3	0.8	2	0.5
Illinois	3	0.5	6	0.9
Kentucky	1	1.2	1	1.2
Massachusetts	32	14.2	32	14.1
Michigan	6	0.3	7	0.3
New Hampshire	39	7.0	83	14.8
New Jersey	133	12.4	189	17.6
North Dakota	0	0.0	0	0.0
Ohio	20	1.4	15	1.0
South Carolina	3	5.9	3	5.9
Vermont	4	0.7	7	1.3

Notes:
[1] Detections determined by individual state reported limits which are not defined consistently across all states.
[2] Only reported detections.

Based on the available state data evaluated and presented in Table 7, Table 8, and Table 9, within 12 states that conducted non-targeted monitoring there are 661 systems that show exceedances of the proposed PFOS MCL

of 4.0 ppt and 883 systems with exceedances of the proposed PFOA MCL of 4.0 ppt. These systems serve populations of approximately 8.8 and 10.5 million people, respectively. As expected, the number of systems exceeding either of the proposed alternative MCLs decreases as the values are higher, however, even at the highest alternative PFOS and PFOA MCL values of 10.0 ppt, would still be 267 and 353 systems with exceedances, serving populations of approximately 3.7 and 4.4 million people, respectively.

Monitoring data for PFOA and PFOS from states that conducted targeted sampling efforts shows additional systems that would exceed the proposed and alternative MCLs. For example, in California, Maine, Maryland, and Pennsylvania, 23.4 percent (25 PWSs), 30.4 percent (7 PWSs), 22.7 percent (15 PWSs), and 19.3 percent (66 PWSs) of monitored systems exceeded the proposed PFOS MCL of 4.0 ppt, respectively, and 20.6 percent (22 PWSs), 21.7 percent (5 PWSs), 25.8 percent (17 PWSs), and 21.1 percent (72 PWSs) of monitored systems exceeded the proposed PFOA MCL of 4.0 ppt, respectively. While these frequencies may be anticipated given the sampling locations, within only these four states that conducted limited, targeted monitoring, the monitored systems exceeding the proposed PFOS MCL and proposed PFOA MCL serve significant populations of approximately 4.6 million people and approximately 4.4 million people, respectively.

C. Co-Occurrence

While the discussions in sections III.B, VII.A. and VII.B of this preamble describe how PFOA, PFOS, PFHxS, HFPO–DA, PFNA, and PFBS occur individually, PFAS have been documented to co-occur in finished drinking water (Adamson et al., 2017; Cadwallader et al., 2022; Guelfo and Adamson, 2018). As discussed in section VI of this preamble, EPA is proposing regulation of four PFAS including PFHxS, HFPO–DA, PFNA, and PFBS (collectively referred to as ''HI PFAS'') as part of an HI approach. Sampling results in the aggregated state dataset were examined to determine the extent to which the HI PFAS occurred with each other as well as with PFOA and/or PFOS. This involved considering the observed occurrence in terms of grouping (*i.e.,* groups of HI PFAS and ''PFOS or PFOA'') as well as pairwise by means of odds ratios. For the group assessment, the aggregated state dataset was limited to samples from non-targeted monitoring efforts where at least one HI PFAS was analyzed and PFOS and PFOA were analyzed sufficiently to determine whether one was present.

1. Groupwise Chemical Co-Occurrence

Table 10 shows the distribution of systems and samples according to whether states report detections for any HI PFAS (PFHxS, HFPO–DA, PFNA and PFBS) and whether they also reported detections of PFOS or PFOA. USEPA (2023e) provides additional information for this analysis.

TABLE 10—NON-TARGETED STATE PFAS FINISHED WATER DATA—SAMPLES AND SYSTEMS BINNED ACCORDING TO WHETHER PFOS OR PFOA WERE REPORTED BY STATES AND WHETHER ADDITIONAL HI PFAS WERE REPORTED

Type	No PFOS or PFOA reported		PFOS or PFOA reported		Total count
	No HI PFAS reported	At least one HI PFAS reported	No HI PFAS reported	At least one HI PFAS reported	
Samples	12,704 (65.2%)	357 (1.8%)	3,380 (17.3%)	3,041 (15.6%)	19,482
Systems	5,560 (78.8%)	196 (2.8%)	516 (7.3%)	784 (11.1%)	7,056

Considering eligible samples and systems within the aggregated state dataset, states reported detections of either PFOS, PFOA, or one or more HI PFAS in 34.8 percent (6,778 of 19,482) of samples and 21.2 percent (1,496 of 7,056) of systems. When any PFAS (among PFOA, PFOS, and the HI PFAS) were reported detected, at least one HI PFAS was also reported in 50.1 percent (3,398 of 6,778) of samples and at 65.5 percent (980 of 1,496) of systems. Further, among samples and systems that reported detections of PFOS or PFOA, at least one HI PFAS was detected in 47.4 percent (3,041 of 6,421) of samples and at 60.3 percent (784 of 1,300) of systems. This demonstrated strong co-occurrence of HI PFAS with PFOA and PFOS and a substantial likelihood (over 50 percent) of at least one HI PFAS being present at systems with reported detections of PFOS or PFOA. Overall, one or more HI PFAS were reported at about 13.9 percent (980 of 7,056) of systems included in the aggregated state dataset of non-targeted monitoring. If this percentage were extrapolated to the nation, one or more HI PFAS would be at detectable levels in over 9,000 systems. Table 11 shows the distribution of systems in a similar manner but provides a breakdown by state and includes only systems that monitored for either three or four of the HI PFAS.

TABLE 11—NON-TARGETED STATE PFAS FINISHED WATER DATA—SYSTEMS THAT SAMPLED FOR 3 OR 4 HI PFAS BINNED ACCORDING TO WHETHER PFOS OR PFOA WERE REPORTED AND WHETHER ANY ADDITIONAL HI PFAS WERE REPORTED BY STATE

State	No PFOA/S detected		PFOA/S detected		Total system count
	No HI detected	HI detected	No HI detected	HI detected	
CO	270 (68.0%)	26 (6.5%)	11 (2.8%)	90 (22.7%)	397
IL	582 (89.7%)	22 (3.4%)	15 (2.3%)	30 (4.6%)	649
KY	37 (52.9%)	2 (2.9%)	16 (22.9%)	15 (21.4%)	70
MA	60 (35.5%)	2 (1.2%)	12 (7.1%)	95 (56.2%)	169
MI	1,969 (91.5%)	82 (3.8%)	43 (2.0%)	58 (2.7%)	2,152
ND	49 (98%)	1 (2.0%)	0 (0.0%)	0 (0.0%)	50
NH	60 (43.2%)	2 (1.4%)	34 (24.5%)	43 (30.9%)	139
NJ	225 (36.3%)	7 (1.1%)	127 (20.5%)	261 (42.1%)	620

TABLE 11—NON-TARGETED STATE PFAS FINISHED WATER DATA—SYSTEMS THAT SAMPLED FOR 3 OR 4 HI PFAS BINNED ACCORDING TO WHETHER PFOS OR PFOA WERE REPORTED AND WHETHER ANY ADDITIONAL HI PFAS WERE REPORTED BY STATE—Continued

State	No PFOA/S detected		PFOA/S detected		Total system count
	No HI detected	HI detected	No HI detected	HI detected	
OH	1,397 (94.5%)	31 (2.1%)	25 (1.7%)	26 (1.8%)	1,479
SC	10 (22.2%)	1 (2.2%)	10 (22.2%)	24 (53.3%)	45
VT	488 (87.6%)	15 (2.7%)	31 (5.6%)	23 (4.1%)	557

The percentage of systems included in Table 11 that reported detections of any HI PFAS ranged from 2.0 to 57.4 percent of systems when broken down by state, with six states exceeding 20 percent of systems. The percentage of systems that reported detections of any PFAS ranged from 2.0 to 77.8 percent. Many systems and/or samples that were included in the aggregated state dataset did not monitor for all four HI PFAS. It is possible that more systems would have detected HI PFAS if they had monitored for all four HI PFAS. Additionally, as demonstrated in Table 11, when PFOA and/or PFOS were reported, at least one of the HI PFAS chemicals were also frequently reported. Table 12 presents system counts for systems where PFOS or PFOA were detected according to (a) how many HI PFAS were monitored and (b) how many HI PFAS were reported to be detected.

TABLE 12—NON-TARGETED STATE PFAS FINISHED WATER DATA—SYSTEM COUNTS ACCORDING TO HI PFAS ANALYZED AND REPORTED PRESENT FOR SYSTEMS WHERE PFOS AND PFOA WERE REPORTED

HI analyzed	HI reported present					Total
	0	1	2	3	4	
1	143 (70.1%)	61 (29.9%)	.....	.....	.....	204
2	49 (45.8%)	41 (38.3%)	17 (15.9%)	.....	.....	107
3	153 (34.7%)	95 (21.5%)	137 (31.1%)	56 (12.7%)	.....	441
4	171 (31.2%)	135 (24.6%)	179 (32.7%)	61 (11.1%)	2 (0.4%)	548
Total	516	332	333	117	2	.....

Among systems that reported detections of PFOS and/or PFOA, the fraction of systems that also reported detections of any HI PFAS tended to increase as systems monitored for more of the HI PFAS. At systems monitoring for a single HI PFAS, 29.9 percent reported a detection at some point during sampling. This increased to 68.8 percent of systems reporting detections of at least one HI PFAS when monitoring for all four HI PFAS. Not only did the fraction of systems reporting detections of any HI PFAS increase as the number of HI PFAS increased, so did the number of HI PFAS that were reported. When three or four HI PFAS were monitored, over 40 percent of systems reported detections of two to three of the HI PFAS. Thus, if PFOS or PFOA are reported, there is a reasonable likelihood that multiple HI PFAS would be present as well.

2. Pairwise Chemical Co-Occurrence

In addition to considering the co-occurrence of six PFAS as two groups, EPA conducted a pairwise analysis to further explore co-occurrence relationships. Table 13 shows the calculated system-level odds ratios for every unique pair of PFAS chemicals evaluated. The equation for calculating odds ratios is symmetrical. Because of this, in a given row it does not matter which chemical is ''Chemical A'' and which is ''Chemical B.'' Additional information on odds ratios may be found in USEPA (2023e) and a brief explanation is described following Table 13.

TABLE 13—NON-TARGETED STATE PFAS FINISHED WATER DATA—SYSTEM-LEVEL COUNTS OF PAIRWISE CHEMICAL OCCURRENCE AND ODDS RATIOS CALCULATED FROM AGGREGATED STATE DATASET PFAS SAMPLES FOR PFOS, PFOA, AND HI PFAS

Chem A	Chem B	Chems A and B reported	Only Chem B reported	Only Chem A reported	Neither Chem reported	Odds ratio [95% CI]
HFPO–DA	PFBS	10	452	10	5,116	11.3 [4.8–26.7]
HFPO–DA	PFHxS	2	339	18	5,229	1.7 [0.4–6.7]
HFPO–DA	PFNA	2	77	18	5,491	7.9 [2.0–31.4]
HFPO–DA	PFOA	16	438	4	5,129	46.8 [16.3–134.1]
HFPO–DA	PFOS	14	399	6	5,168	30.2 [11.9–76.5]
PFBS	PFHxS	433	133	261	5,501	68.6 [54.5–86.5]
PFBS	PFNA	135	33	560	5,601	40.9 [27.7–60.4]
PFBS	PFOA	517	360	178	5,273	42.5 [34.8–52.0]
PFBS	PFOS	503	278	192	5,355	50.5 [41.1–62.0]
PFHxS	PFNA	150	38	473	5,939	49.6 [34.3–71.6]
PFHxS	PFOA	510	466	113	5,510	53.4 [42.6–66.9]
PFHxS	PFOS	507	353	116	5,623	69.6 [55.4–87.6]

TABLE 13—NON-TARGETED STATE PFAS FINISHED WATER DATA—SYSTEM-LEVEL COUNTS OF PAIRWISE CHEMICAL OCCURRENCE AND ODDS RATIOS CALCULATED FROM AGGREGATED STATE DATASET PFAS SAMPLES FOR PFOS, PFOA, AND HI PFAS—Continued

Chem A	Chem B	Chems A and B reported	Only Chem B reported	Only Chem A reported	Neither Chem reported	Odds ratio [95% CI]
PFNA	PFOA	236	934	15	5,871	98.9 [58.7–166.5]
PFNA	PFOS	234	789	17	6,016	105.0 [64.1–171.9]
PFOA	PFOS	893	130	277	5,756	142.7 [114.5–177.9]

Odds ratios reflect the change in the odds of detecting one chemical (*e.g.,* Chemical A) given that the second chemical (*e.g.,* Chemical B) is known to be present compared to the odds of detecting if the second chemical is not present. For example, as shown in Table 13, the point estimate of 142.7 for the odds ratio between PFOA and PFOS indicates that the odds of detecting PFOA after knowing that PFOS has been observed are 142.7 times what the odds would have been if PFOS was not observed, and vice versa. For every pair of chemicals, except for HFPO–DA and PFHxS, both the point estimate and 95 percent CI were above 1, indicating significant increases in the likelihood of detecting one chemical if the other is present. For HFPO–DA and PFHxS, 1 fell within the 95 percent CI, and thus the odds ratio was not determined to be statistically significantly different from 1.

Both as a group and as individual chemicals, the HI PFAS had a higher likelihood of being reported if PFOS or PFOA were present. PFHxS, HFPO–DA, PFNA and PFBS (the individual HI PFAS) are demonstrated to generally co-occur with each other, as well. As such, these data support that there is a substantial likelihood PFHxS, HFPO–DA, PFNA, and PFBS co-occur with a frequency of public health concern in drinking water systems.

D. Occurrence Relative to the Hazard Index

EPA analyzed the available state data in comparison to the proposed HI MCL of 1.0 to evaluate the co-occurrence of PFHxS, HFPO–DA, PFNA, and PFBS. Table 14 presents the total number and percentage of monitored systems that exceeded the proposed HI MCL based on state reported HI PFAS detections for the states that conducted non-targeted monitoring and that sampled all four HI PFAS as a part of their overall monitoring efforts. EPA notes that for equivalent comparison purposes Table 14 only accounts for samples that included reported values (including non-detects) of all four HI PFAS. As shown within the table, the majority of states evaluated had monitored systems exceed the proposed HI MCL, ranging from 0.72 to 7.41 percent of total monitored systems.

TABLE 14—NON-TARGETED STATE PFAS FINISHED WATER DATA—SUMMARY OF TOTAL NUMBER AND PERCENT OF MONITORED SYSTEMS EXCEEDING THE HI WITH SAMPLES CONTAINING REPORTED VALUES OF ALL HI PFAS

State	Total monitored systems > proposed HI of 1.0	Percent systems > proposed HI of 1.0
Colorado	5	1.26
Illinois	10	1.54
Kentucky	6	7.41
Massachusetts	8	6.40
Michigan	14	0.65
New Hampshire	4	2.99
North Dakota	0	0.00
Ohio	25	1.69
South Carolina	0	0.00
Vermont	4	0.72

Further evaluating the available state data related to the proposed HI MCL of 1.0, Table 15 presents the total number of systems and associated populations served that exceed the proposed HI of 1.0 based on state reported HI PFAS detections for the same states shown in Table 15. However, in this case, EPA also analyzed the same non-targeted state data adding in additional samples even if those samples did not contain reported values (including non-detects) for all four HI PFAS (*i.e.,* exceeding the HI based on only one to three HI PFAS with reported values included within a sample). Moreover, while these states did monitor for all four HI PFAS as a part of their overall monitoring, in a subset of those states some samples did not include reported data on all four HI PFAS (*i.e.,* values of one or more of the HI PFAS were not reported as non-detect, rather no value was reported). This analysis, presented in Table 15, shows an increase in the number of monitored systems exceeding the proposed HI of 1.0 and demonstrates prevalence of these PFAS at levels of concern, even when all four PFAS may not be included within a sample.

TABLE 15—NON-TARGETED STATE PFAS FINISHED WATER DATA—SUMMARY OF TOTAL MONITORED SYSTEMS EXCEEDING THE HI WITH SAMPLES CONTAINING REPORTED VALUES OF ANY NUMBER OF HI PFAS

State	Total monitored systems > proposed HI of 1.0	Population served
Colorado	5	5,429
Illinois	10	107,461
Kentucky	6	103,315
Massachusetts	19	302,482
Michigan	14	221,484
New Hampshire	25	36,463
North Dakota	0	0
Ohio	25	234,834
South Carolina	0	0
Vermont	4	410

Combining the non-targeted monitoring results shown previously with targeted state monitoring conducted for all four HI PFAS showed at least 917 samples from 157 PWSs in 15 states that exceed the proposed HI of 1.0 for PFHxS, HFPO–DA, PFNA, and PFBS. These systems serve approximately 3.08 million people. Additionally, data from New Jersey, which conducted non-targeted monitoring but did not conduct any monitoring that included all four HI PFAS, showed an additional 243 samples within 57 systems serving a total population of approximately 1.43 million people exceeding the proposed HI of 1.0 based solely upon the reported detections of three of the four HI PFAS (*i.e.,* PFHxS, PFNA, and PFBS). USEPA (2023e) presents a detailed discussion on state PFAS monitoring information. More information on occurrence in state monitoring is available in section III.B. of this preamble.

In summary, the finished water data collected under both non-targeted and targeted state monitoring efforts from 22 states showed there are at least 1,007 PWSs serving a total population of approximately 15.3 million people that have at least one result exceeding the proposed PFOA MCL of 4.0 ppt. In those same 22 states, there are also at least 805 PWSs serving a total population of approximately 13.6 million people that have at least one result exceeding the proposed PFOS MCL of 4.0 ppt. Related to the proposed HI, finished water data collected under both non-targeted and targeted state monitoring efforts in 16 states showed there are at least 214 systems serving a total population of approximately 4.5 million people that exceed the proposed HI value of 1.0 for PFHxS, HFPO–DA, PFNA, and PFBS. USEPA (2023e) presents a detailed discussion on state PFAS monitoring information. Additionally, EPA is aware that since the data were collected some of these states may have updated data available and that additional states have or intend to conduct monitoring of finished drinking water, such as New York and Virginia. EPA will consider, and as appropriate, analyze additional data submitted in response to this proposal to inform future regulatory decision making.

E. Occurrence Model

A Bayesian hierarchical occurrence model was developed to explore national occurrence of the four PFAS that were most frequently detected in the UCMR 3: PFOS, PFOA, PFHxS, and PFHpA. While PFNA and PFBS were included in the UCMR 3 as well, they lacked sufficient reported values above the UCMR 3 MRLs to be incorporated into the model. The model has been peer reviewed and is described extensively in Cadwallader et al. (2022). Briefly, inputs to the model include the UCMR 3 dataset as well as subsequent data in publicly available state datasets that were collected at PWSs that took part in the UCMR 3. 23,130 analytical results from state datasets were used to supplement the UCMR 3. These results were derived from 17 state datasets. The objective of the model was to enable national estimates of PFAS occurrence by using available UCMR 3 and state data to inform occurrence distributions both within and across PWSs. Note that while PFHpA was included in the model because of its UCMR 3 occurrence data availability, EPA is not proposing to regulate it in this document.

The model uses Markov chain Monte Carlo (MCMC) and the assumption of lognormality in PFAS chemical occurrence. After log-transforming all available data, system-level means (where each system has a mean concentration for each chemical) were assumed to be distributed multivariate normally. Further, within-system occurrence was assumed to be distributed normally for each chemical. Since system-level means are distributed multivariate normally, correlation between estimated system-level means across chemicals could also be assessed. The assumption of lognormality as well as the incorporation of state data with lower reporting limits allowed the model to generate reasonable estimates for PFAS occurrence at levels below the UCMR 3 MRLs. EPA has used similar hierarchical statistical models to inform regulatory decision making in the past, such as for development of the NPDWR for Arsenic and Cryptosporidium parvum (USEPA, 2006b; USEPA, 2000e).

After the model was fit with available data from PWSs that were included in the UCMR 3, it was used to simulate occurrence at an inventory of active CWS and NTNCWS extracted from the Safe Drinking Water Information System (SDWIS). System-level means for non-UCMR 3 systems were simulated by sampling from the multivariate normal distribution of system-level means that was produced during the model fitting process. For systems that were included in the UCMR 3, the fitted system-level mean was used directly. Using population data retrieved from SDWIS, the total number of systems with system-level mean concentrations of each chemical, as well as their associated population served, could be estimated. The median estimate and the 90 percent credible interval are shown for the systems with system-level means at or above various PFAS concentrations in Table 16 and the population served by those systems in Table 17.

TABLE 16—NATIONAL OCCURRENCE MODEL ESTIMATE—ESTIMATED NUMBER OF SYSTEMS WITH SYSTEM-LEVEL MEANS AT OR ABOVE VARIOUS CONCENTRATIONS

Concentration (ppt)	PFHxS [90% CI]	PFOA [90% CI]	PFOS [90% CI]
4.0	1,697 [1,053–2,702]	1,987 [1,338–3,016]	3,427 [2,326–4,900]
5.0	1,232 [745–2,009]	1,351 [903–2,083]	2,593 [1,737–3,770]
10.0	417 [241–730]	349 [223–577]	986 [627–1,531]

TABLE 17—NATIONAL OCCURRENCE MODEL ESTIMATE—ESTIMATED POPULATION SERVED BY SYSTEMS WITH SYSTEM-LEVEL MEANS AT OR ABOVE VARIOUS CONCENTRATIONS

Concentration (ppt)	PFHxS [90% CI]	PFOA [90% CI]	PFOS [90% CI]
4.0	18,641,000 [15,669,000–21,693,000]	28,051,000 [24,966,000–33,071,000]	30,627,000 [27,407,000–35,665,000]
5.0	14,092,000 [11,129,000–16,887,000]	20,844,000 [18,193,000–24,239,000]	24,405,000 [21,611,000–28,440,000]
10.0	4,608,000 [3,432,000–7,262,000]	7,111,000 [5,566,000–9,335,000]	10,561,000 [7,858,000–12,866,000]

For PFOA, PFOS, and PFHxS, thousands of systems were estimated to have mean concentrations over the lowest thresholds (*i.e.,* 4.0 and 5.0 ppt) presented in Tables 16 and 17 with the total population served estimated to be in the tens of millions. The populations shown here represent the entire populations served by systems estimated to have system-level means over the various thresholds. It is likely that different subpopulations would be exposed to different mean PFAS concentrations if multiple source waters are used.

In addition to the estimates of individual chemical occurrence, the multivariate normal distribution of system-level means allowed the model to provide insight on estimated co-occurrence. Untransformed estimates of system-level means were assessed for correlation across each unique pair of the four modeled chemicals included in the model. Estimates of the Pearson correlation coefficient are shown in Table 18. The Pearson correlation coefficient serves as an indicator of the strength of the linear relationship between two variables and may range from −1 to 1. Positive values indicate a positive relationship (*i.e.,* as one variable increases, so does the other).

TABLE 18—NATIONAL OCCURRENCE MODEL ESTIMATE—MEDIAN ESTIMATED PEARSON CORRELATION COEFFICIENT AND 90% CREDIBLE INTERVAL AMONG SYSTEM-LEVEL MEANS

Chemical pair	Pearson correlation coefficient [90% CI]
PFOS–PFOA	0.71 [0.60–0.79]
PFOS–PFHpA	0.69 [0.57–0.78]
PFOS–PFHxS	0.85 [0.74–0.92]
PFOA–PFHpA	0.85 [0.80–0.89]
PFOA–PFHxS	0.55 [0.41–0.65]
PFHpA–PFHxS	0.62 [0.47–0.72]

EPA considered a moderate strength correlation as greater than 0.5 and a strong correlation as greater than 0.7. Each point estimate of correlation coefficients between two chemicals was above the threshold for a moderate strength correlation. The carboxylic acids (PFOA–PFHpA) and sulfonic acids (PFOS–PFHxS) had the highest estimated correlation strengths, with both the point estimate and the 90% credible interval above 0.7. PFOS–PFOA and PFOS–PFHpA had similar point estimates and 90% credible interval ranges, spanning the moderate-to-strong correlation range. Both PFOA–PFHxS and PFHpA–PFHxS had the bulk of their posterior distributions fall in the range of a moderate strength correlation. Thus, the model predicted significant positive relationships among system-level means of all four chemicals that were included. These results support the co-occurrence discussion presented in section VII.C of this preamble that indicated extensive co-occurrence of PFOA, PFOS, and the HI PFAS observed in state datasets from both groupwise and pairwise chemical perspectives.

F. Combining State Data With Model Output To Estimate National Exceedance of Either MCLs or Hazard Index

In order to broadly estimate the number of systems that would be impacted by the proposed regulation, including MCLs of 4.0 ppt for PFOA and PFOS alongside an HI of 1.0 for PFHxS, HFPO–DA, PFNA, and PFBS, findings from non-targeted monitoring in state datasets were combined with model estimates. Specific details on the methodology can be found in USEPA (2023e). Briefly, information collected from non-targeted state datasets included the fractions of systems that reported a measurement at or above the UCMR 5 MRL for a given analyte and an empirical cumulative distribution function (eCDF) consisting of system-level maximum observed concentrations of that chemical at these systems. The UCMR 5 MRLs for HFPO–DA, PFNA, and PFBS are equivalent to 5.0 ppt, 4.0 ppt, and 3.0 ppt, respectively (USEPA, 2021e). This applies the assumption that

the fraction of systems that observed HFPO–DA, PFNA, and PFBS at or above UCMR 5 MRLs and the maximum concentrations observed at those systems are reasonably representative of the nation.

The model was used to simulate entry point-level concentrations of the four modeled PFAS (PFOA, PFOS, PFHpA, and PFHxS) under the assumption that within-system concentrations are lognormally distributed (a common assumption for drinking water contaminants, see (Cadwallader et al. (2022)) and that variability in concentrations is entirely across entry points (thus a given entry point is assumed to have a constant concentration) For each system, the maximum estimated entry point PFOA or PFOS concentration was selected to determine whether the system exceeded either of the proposed MCLs of 4.0 ppt. The entry point with the maximum concentration is the point that determines whether a system has an entry point that is above an MCL. Estimates of the system-level maximum for PFHxS were also selected for the HI calculation. The maximum value of the sum of the four modeled PFAS at each system was selected and used as a basis for determining which systems would receive superimposed concentrations of the three remaining HI chemicals (HFPO–DA, PFNA, and PFBS). This approach was selected due to the extensive observed co-occurrence of PFAS in the UCMR 3, state data, and modeled estimates.

Multiple methods of system selection were used that reflected different degrees of co-occurrence. The chemical concentration that was applied to selected systems were randomly sampled from the eCDF for each chemical. Based on the model output, this assumes that system-level maximums for HFPO–DA, PFNA, and PFBS would occur at the same location within a system. Substantial co-occurrence among PFAS was observed in the model output, state datasets, and the UCMR 3 dataset. Combination of system-level maximums independently pulled from chemical eCDFs is a reasonable simplifying assumption given this co-occurrence. This is particularly true given that the systems selected for each chemical are not necessarily the same and in most cases were probability-weighted. Estimates of the range of systems impacted were developed by taking Q5 and Q95 estimates for each method. The low end of the range was taken as the lowest Q5 estimate across methods, rounded down, while the high end of the range was taken as the highest Q95 estimate across methods, rounded up. This was also done for the total population served by these systems.

The resulting range of systems estimated to be impacted by the proposed regulation of an MCL of 4.0 ppt for PFOA and PFOS and an HI of 1.0 for a mixture of PFHxS, HFPO–DA, PFNA, and PFBS was 3,400–6,300 systems serving a total population of 70–94 million people. Among these systems, 100–500 were estimated to be systems exceeding the HI for PFHxS, HFPO–DA, PFNA, and PFBS that had not already exceeded the MCLs for PFOA and/or PFOS. The total population served by these systems was estimated to be 0.6 to 6.3 million people.

In summary, using the MCMC occurrence model, EPA estimated baseline occurrence to derive occurrence and exposure estimates for the proposed MCLs for PFOA and PFOS, as well as alternative MCLs. EPA then used these modeled estimates to inform the costs and benefits determination as described in section XIII of this preamble. Here and in section XIII of this preamble, EPA requests comment on the number of systems estimated to solely exceed the HI (but not the PFOA or PFOS MCLs) according to the approach outlined in USEPA (2023e).

VIII. Analytical Methods

EPA developed the following liquid chromatography/tandem mass spectrometry (LC/MS/MS) analytical methods to quantitatively monitor drinking water for targeted PFAS: EPA Method 533 (USEPA, 2019b) and EPA Method 537.1, Version 2.0 (USEPA, 2009b; USEPA, 2020a). All six PFAS proposed for regulation can be measured by both EPA Methods 533 and 537.1 and both methods are acceptable for meeting the monitoring requirements of this regulation.

EPA Method 533 monitors for 25 select PFAS, including PFOA, PFOS, PFHxS, HFPO–DA, PFNA, and PFBS, with published measurement accuracy and precision data for PFOA in reagent water, finished ground water, and finished surface water. For further details about the procedures for this analytical method, please see *Method 533: Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry* (USEPA, 2019b).

EPA Method 537.1 (an update to EPA Method 537), monitors for 18 select PFAS, including PFOA, PFOS, PFHxS, HFPO–DA, PFNA, and PFBS, with published measurement accuracy and precision data for PFOA in reagent water, finished ground water, and finished surface water. For further details about the procedures for this analytical method, please see *Method 537.1, Version 2.0, Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)* (USEPA, 2020a).

A. Practical Quantitation Levels (PQLs) for Regulated PFAS

As described in section VI of this preamble, a PQL is defined as the ''lowest concentration of an analyte that can be reliably measured within specified limits of precision and accuracy during routine laboratory operating conditions'' (USEPA, 1985). EPA uses the PQL to estimate or evaluate the minimum, reliable quantitation level that most laboratories can be expected to meet during day-to-day operations. The basis for setting PQLs is (1) quantitation, (2) precision and accuracy, (3) normal operations of a laboratory, and (4) the fundamental need (in the compliance monitoring program) to have a sufficient number of laboratories available to conduct the analyses. For the PFAS regulated in this proposal, EPA is proposing the following PQLs outlined in Table 19:

TABLE 19—PQLS FOR REGULATED PFAS

Contaminant	PQL (ppt)
PFOA	4.0
PFOS	4.0
HFPO–DA	5.0
PFHxS	3.0
PFNA	4.0
PFBS	3.0

Drinking water analytical laboratories have different performance capabilities dependent upon their instrumentation (manufacturer, age, usage, routine maintenance, operating configuration, etc.) and analyst experience. Some laboratories will effectively generate accurate, precise, quantifiable results at lower concentrations than others. Organizations that collect data need to establish data quality objectives (DQOs) to meet the needs of their program. These DQOs should consider establishing reasonable quantitation levels that laboratories can routinely meet. Establishing a quantitation level that is too low may result in recurring QC failures that will necessitate repeating sample analyses, increase

costs, and potentially reduce laboratory capacity. Establishing a quantitation level that is too high may result in important lower-concentration results not being quantitated.

EPA's approach to establishing DQOs within the UCMR program serves as an example. EPA established MRLs for UCMR 5, finalized in December 2021, and requires laboratories approved to analyze UCMR samples to demonstrate that they can make quality measurements at or below the established MRLs. EPA calculated the UCMR 5 MRLs using quantitation-limit data from multiple laboratories participating in an MRL-setting study. An MRL is set after a statistical determination that 75% of laboratories will be able to meet that level with a 95% CI (USEPA, 2022g). The UCMR 5 MRLs are not intended to represent the lowest achievable measurement level an individual laboratory may achieve. As noted above, these MRLs are derived using the quantitation level results from multiple laboratories participating in an analytical study and account for differences in the capability of laboratories across the country.

For UCMR 5, EPA calculated and published the following multi-laboratory MRLs for the PFAS addressed in this proposed rule: PFOA: 0.004 µg/L (4.0 ppt); PFOS: 0.004 µg/L (4.0 ppt); PFHxS: 0.003 µg/L (3.0 ppt); HFPO–DA: 0.005 µg/L (5.0 ppt); PFNA: 0.004 µg/L (4.0 ppt); PFBS: 0.003 µg/L (3.0 ppt). Based on the multi-laboratory data acquired for the UCMR 5 rule, EPA has defined the PQL for PFAS addressed in this proposed rule to be equal to the UCMR 5 MRL (see Table 19, above).

Some laboratories are capable of measuring the PFAS addressed in this proposed rule at lower concentrations. Indeed, EPA received some public comments prior to developing the final UCMR 5 recommending lower MRLs than those that were ultimately promulgated (USEPA, 2022g). However, after reviewing the data from laboratories that participated in the MRL-setting study for UCMR 5, EPA concluded that the MRLs set in that rule represented ''lowest feasible'' levels for a national measurement program. Based on laboratory performance in EPA's UCMR 5 Laboratory Approval Program, during 2021–2022, EPA believes that the UCMR 5 MRLs are appropriate for using as PQL for this proposed rulemaking. EPA recognizes that as more laboratories upgrade their instrumentation and gain more experience analyzing drinking water samples for PFAS, more laboratories may become capable of quantitatively measuring PFAS at lower concentrations.

While the values below the PQL will not be used to calculate compliance with the proposed MCLs under this proposed rule (see discussion above in Section VI of this preamble), values lower than the PQL are achievable by individual laboratories, and therefore lower levels can be used for purposes of screening and to determine compliance monitoring frequency. EPA is proposing the use of a rule trigger level for less frequent compliance monitoring under certain circumstances in which systems can demonstrate PFAS concentrations in finished drinking water are below:

- one-third of the MCLs for PFOA and PFOS, *i.e.,* 1.3 ppt; and
- one-third of the HI MCL for the HI PFAS (PFHxS, HFPO–DA, PFNA, and PFBS), *i.e.,* 0.33.

Based on laboratory calibration standard data submitted as part of the UCMR 5 Laboratory Approval Program, described in more detail in section VI.A. of this preamble, EPA maintains that laboratories are capable of screening to this level. For additional discussion on this rule trigger level and monitoring requirements for this proposal, please see sections VI.A. and IX of this preamble.

IX. Monitoring and Compliance Requirements

A. What are the monitoring requirements?

EPA is proposing requirements for CWS and NTNCWSs to monitor for certain PFAS. The Agency is proposing to amend 40 CFR part 141 by adding a new subpart to incorporate the regulated PFAS discussed in this preamble. Under this new subpart, PWSs must sample entry points to the distribution system using a monitoring regime based on EPA's SMF for SOCs. Under the SMF for SOCs, the monitoring frequency for a PWS is dependent on previous monitoring results, among other things (USEPA, 2004). EPA is proposing that, consistent with the SMF for SOCs, groundwater systems serving greater than 10,000 and all surface water systems are initially required to monitor quarterly within a 12-month period for regulated PFAS. To provide additional flexibilities for small groundwater systems, EPA is also proposing and taking comment on a modification to the SMF for SOCs in that groundwater systems serving 10,000 or fewer are initially required to only monitor twice for regulated PFAS within a 12-month period, each sample at least 90 days apart. In this proposal, all systems would be allowed to use previously acquired monitoring data to satisfy the initial monitoring requirements (see subsection (C) of this preamble below for additional details about using previously acquired monitoring data to satisfy initial monitoring requirements). Based on the SMF, EPA is also proposing that based upon the initial monitoring results, primacy agencies would be able to reduce compliance monitoring frequency for a system to once or twice every three years (depending on system size) if the monitoring results are below the rule trigger level (defined below).

EPA is proposing that water systems will conduct compliance monitoring to demonstrate that finished drinking water does not exceed the MCLs for regulated PFAS. Water systems must show the primacy agency that the contaminant is not present in the drinking water supply or, if present, it does not exceed the proposed MCLs for regulated PFAS. For compliance monitoring frequency purposes only, EPA is proposing a rule trigger level of one-third the MCLs (1.3 ppt for PFOA and PFOS and 0.33 for HI PFAS (PFHxS, HFPO–DA, PFNA, and PFBS)). As such, EPA is proposing amendments for a new subpart to include the following term to describe the circumstances in which water systems may be eligible for reduced monitoring for PFOA and PFOS and the HI PFAS if below this:

- *Rule Trigger Level:* One-third of the MCLs for regulated PFAS, *i.e.,* 1.3 ppt for PFOA and PFOS and 0.33 for PFAS regulated by the HI (PFHxS, HFPO–DA, PFNA, and PFBS).

For more information, including the basis of the rule trigger level, please see sections VI.A. and VIII.A. of this preamble.

EPA notes that for some proposed regulated PFAS, the values used to determine reduced monitoring may be below their PQLs (*e.g.,* PFOA and PFOS at 1.3 ppt when the PQL is 4.0 ppt). For purposes of screening to determine monitoring frequency, however, EPA has sufficient confidence that while measurements below the PQL may be slightly less precise and accurate, they are achievable by individual laboratories and appropriate for this intended purpose. EPA requests comment on this finding regarding feasibility of the proposed MCLs and more generally on laboratory capacity. As noted earlier, EPA anticipates laboratories will be able to adjust to demand (including possible price effects), which the Agency anticipates will be distributed across the implementation period. Further, at the proposed rule trigger level, the measurement is primarily useful in determining whether the contaminant is

present in a sample and for evaluating monitoring flexibilities, rather than to determine its specific concentration. EPA has set these values below the MCLs to allow systems the opportunity to reduce their monitoring schedule and burden, while minimizing the chance of random normal variation resulting in a single sample close to, but below the MCLs, when the ''true'' annual average value would be above the MCL. For additional discussion on PQL, please see section VII of this preamble. Systems below the rule trigger level would be required to conduct compliance monitoring according to the following schedule:

- Systems that do not detect regulated PFAS in their systems at or above the rule trigger level (1.3 ppt for PFOA and PFOS and 0.33 for the HI PFAS (PFHxS, HFPO–DA, PFNA, and PFBS)), and that serve 3,300 or fewer customers will be required to analyze one sample for all regulated PFAS per three-year compliance period at each entry point to the distribution system (EPTDS) that does not meet or exceed the rule trigger level.
- Systems that do not detect regulated PFAS in their systems at or above the rule trigger level (1.3 ppt for PFOA and PFOS and 0.33 for the HI PFAS (PFHxS, HFPO–DA, PFNA, and PFBS), and that serve a population of greater than 3,300 will be required to analyze two samples for all regulated PFAS at least 90 days apart in one calendar year per three-year compliance period at each EPTDS that does not meet or exceed the rule trigger level.

If a water system is not below the rule trigger level for regulated PFAS at a given EPTDS, it will be required to monitor for all regulated PFAS quarterly at that EPTDS. Systems monitoring less frequently than quarterly whose sample result is at or exceeds the rule trigger level must also begin quarterly sampling at the EPTDS where regulated PFAS were observed at or above the trigger level. In either case, the primacy agency may allow a system to move to a reduced monitoring frequency when the primacy agency determines that the system is below the rule trigger level and reliably and consistently below the MCL. However, primacy agencies cannot determine that the system is below the rule trigger level and reliably and consistently below the MCL until at least four consecutive quarters of quarterly monitoring have occurred. EPA notes that, as described above, systems may have EPTDS within a system on different compliance monitoring schedules depending on monitoring results.

In this document, EPA requests comment on the reduced monitoring approach the Agency is proposing which will save resources for many lower-risk water systems. First, EPA is requesting comment on the allowance of a water system to potentially have each EPTDS on a different compliance monitoring schedule based on specific entry point sampling results (*i.e.,* some EPTDS being sampled quarterly and other EPTDS sampled only once or twice during each three-year compliance period), and if instead, compliance monitoring frequency should be consistent across all of the system's sampling points. EPA is also requesting comment on establishing the proposed rule trigger level values of 1.3 ppt for PFOA and PFOS and 0.33 for the PFAS regulated by the HI (PFHxS, HFPO–DA, PFNA, and PFBS). EPA is seeking comment on establishing the trigger level at other levels, specifically alternative values of 2.0 ppt for PFOA and PFOS and 0.50 for the HI PFAS. EPA notes that adjusting the trigger levels to 2.0 ppt for PFOA and PFOS and 0.50 for the HI PFAS would result in a considerable number of additional water systems significantly reducing their monitoring frequency from at least four times each year to once or twice every three years. EPA also notes that the higher trigger may provide slightly less assurance of the water systems' current regulated PFAS levels as a result of the more intermittent monitoring. EPA is seeking comment on the merits and drawbacks of these higher trigger levels compared to those proposed in this document.

B. How are PWS compliance and violations determined?

Consistent with existing rules for determining compliance with NPDWRs, EPA is proposing that compliance with this rule will be determined based on the analytical results obtained at each sampling point. For systems monitoring quarterly, compliance with the proposed MCLs for regulated PFAS will be determined by running annual averages at the sampling point. Systems monitoring less frequently whose sample result(s) are at or exceed the rule trigger level must revert to quarterly sampling at each EPTDS where the trigger level is met or exceeded for all regulated PFAS in the next quarter, with the triggered sample result being used for the first quarter of monitoring in calculating the running annual average.

A running annual average is an average of sample analytical results for samples taken at a particular monitoring location during the previous four consecutive quarters. If a system takes more than one compliance sample during each quarter at a particular monitoring location, the system must average all samples taken in the quarter at that location to determine the quarterly averages to be used in calculating the running annual averages. Conversely, if a system does not collect required samples for a quarter, the running annual average will be based on the total number of samples collected for the quarters in which sampling was conducted. A system will not be considered in violation of an MCL until it has completed one year of quarterly sampling, except in the case where, if a quarterly sampling result will cause the running annual averages to exceed an MCL at any sampling point (*i.e.,* the analytical result is greater than four times the MCL). In that case, the system is out of compliance with the MCL immediately.

When calculating the running annual averages, if a sample result is less than the PQL for the monitored PFAS, EPA is proposing to use zero to calculate the average for compliance purposes. For example, if a system has sample results for PFOA that are 2.0, 1.5, 5.0, and 1.5 ppt for their last four quarters at a sample location, the values used to calculate the running annual average would be 0.0, 0.0, 5.0, and 0.0 with a resulting PFOA running annual average of 1.3 ppt. As described in sections VI and VIII of this preamble, EPA is proposing that values below the PQL will not be used to determine compliance with the proposed MCLs as these PQLs are the lowest concentration of analyte that can be reliably measured within specified limits of precision and accuracy during routine laboratory conditions. As such, quantifying concentrations below the PQL for compliance purposes may decrease the precision and accuracy of the measured value and may not be achievable for some individual laboratories. In this document, EPA is requesting comment on whether EPA should consider an alternative approach when calculating the running annual averages for compliance. Specifically, in the case where a regulated PFAS is detected but below its proposed PQL, that the proposed rule trigger level (1.3 ppt for PFOA and PFOS and 0.33 of each of the HI PFAS PQLs (*i.e.,* PFHxS=1.0, HFPO–DA=1.7, PFNA=1.3, and PFBS=1.0)) be used as the value in calculating the running annual average for compliance purposes. While this approach may be more complicated to implement than using zero when below the PQL, it is largely consistent with EPA's NPDWRs related to other SOCs and has the

potential to slightly increase the public health protection provided by this proposed regulation.

C. Can systems use previously collected data to satisfy the initial monitoring requirement?

As proposed, systems would be allowed to use previously collected monitoring data to satisfy the initial monitoring requirements. In general, a system with appropriate historical monitoring data for each distribution system entry point, collected using EPA Methods 533 or 537.1 as part of UCMR 5 or a state-level or other appropriate monitoring campaign, could use that monitoring data to satisfy initial monitoring requirements.

EPA is proposing that systems with previously acquired monitoring data from UCMR 5 will not be required to conduct separate initial monitoring for regulated PFAS. To satisfy the initial monitoring requirements for these systems using UCMR 5 data, data collected after January 1st, 2023, can be used for entry point samples.

While EPA expects most systems serving 3,300 or greater will have UCMR 5 data, EPA is also proposing that systems with previously acquired monitoring data from outside UCMR 5, including State-led or other appropriate occurrence monitoring using EPA methods 533 or 537.1 will also not be required to conduct separate initial monitoring for regulated PFAS. This addition may allow systems serving fewer than 3,300 to satisfy the initial monitoring requirements. Data collected after January 1st, 2023, can be used for entry point samples. Data collected between January 1st, 2019, and December 31, 2022, may also be used if it is below the proposed rule trigger level of 1.3 ppt for PFOA and PFOS and an HI of 0.33 for PFHxS, HFPO–DA, PFNA, and PFBS. The additional analytical requirement for older data is to ensure the use of these data is adequately representative of current water quality conditions. If systems have multiple years of data, the most recent data must be used.

D. Can systems composite samples?

40 CFR 141.24 subpart C describes instances where primacy agencies may reduce the samples a system must analyze by allowing samples to be composited. Composite sampling is an approach in which equal volumes of water from multiple entry points are combined into a single container and analyzed as a mixture. The reported concentration from the analysis of the composite sample therefore reflects the average of the analyte concentrations from the contributing entry points. Composite sampling can potentially reduce analytical costs because the number of required analyses is reduced by combining multiple samples into one and analyzing the composited sample. However, based on comments EPA received in consulting with state regulators and small business entities (operators of small PWSs), PFAS are ubiquitous in the environment at low concentrations which necessitates robust laboratory analytical precision at these low concentrations. For example, incidental contamination from or adherence to surface laboratory equipment may artificially lower contaminant concentrations or result in false negatives. Additionally, PFAS are demonstrated to be ubiquitous in the environment such that the risk for false positives may increase when combining samples for composite analysis. Based on these potential implementation issues, EPA is proposing a deviation from the SMF for SOCs by not allowing samples to be composited.

E. Can primacy agencies grant monitoring waivers?

40 CFR 141.24 Subpart C describes instances where the primacy agency may grant waivers predicated on proximity of the system to contaminant sources (*i.e.,* susceptibility to contamination) and previous uses of the contaminant within the watershed (including transport, storage, or disposal). Based on EPA's consultation with state regulators and operators of small PWSs, the Agency believes that due to the ubiquity, environmental persistence, and transport abilities of PFAS, granting waivers based on these conditions would be challenging, therefore EPA is not incorporating this flexibility as a part of these proposed monitoring requirements. However, in this proposal, EPA is considering and taking comment on waivers based on sampling results. Specifically, EPA is requesting comment on whether water systems should be permitted to apply to the primacy agency for a monitoring waiver of up to 9-years (one full compliance cycle) for these proposed PFAS if after at least one year of quarterly sampling the results are below the rule trigger level of one-third of the MCLs, or for systems that may be monitoring less frequently than quarterly if at least two consecutive three year-compliance period sample results are below the rule trigger level. Additionally, EPA is requesting comment on allowing similar monitoring waivers to be granted based on previously acquired monitoring data as described above in subsection (C) of this preamble. In either case, systems with a monitoring waiver would be required to take at least one sample per nine-year compliance cycle in order to maintain or renew an existing waiver. Furthermore, EPA is seeking comment on the identification of possible alternatives to traditional vulnerability assessments that should be considered to identify systems as low risk and potential eligibility for monitoring waivers.

F. When must systems complete initial monitoring?

Pursuant to Section 1412(b)(10), this proposed rule would require compliance three years after promulgation. To satisfy initial monitoring requirements and demonstrate rule compliance, within the three years following rule promulgation, groundwater systems serving a population greater than 10,000 and all surface water systems will be required to demonstrate their baseline concentrations using data from four quarterly samples collected over a one-year period. Groundwater systems serving a population 10,000 or fewer may collect two quarterly samples at least 90 days apart over a one-year period for the purpose of initial monitoring, rather than collecting four quarterly samples. Additionally, as described earlier in this section (subsection C of this preamble), EPA is proposing that systems with appropriate, previously acquired monitoring data from UCMR 5, state-led, or other applicable monitoring programs using EPA Methods 533 or 537.1, will not be required to conduct separate initial monitoring for regulated PFAS. As such, given the advantageous timing of UCMR 5 monitoring data for all systems serving greater than 3,300 and the availability of historical monitoring data that many small systems serving 3,300 or fewer may utilize from state-level monitoring programs, EPA notes this proposed allowance will offer significant burden reduction for these systems and sufficient timing to take necessary actions and ensure rule compliance. For systems that may not have available data and/or choose to conduct additional monitoring, as proposed in this document, EPA would encourage those systems to conduct their initial monitoring as soon as practicable following rule promulgation to allow for actions that may need to be taken based on monitoring results and to certify rule compliance. The Agency seeks comment on EPA's proposed initial monitoring timeframe, particularly for NTNCWS or all systems serving 3,300 or fewer.

G. What are the laboratory certification requirements?

EPA is proposing that laboratories demonstrate their ability to achieve the precision and detection limits necessary to meet the objectives of this regulation. The proposal would require laboratories to analyze performance evaluation (PE) samples every year in order to achieve and maintain certification.

X. Safe Drinking Water Act (SDWA) Right To Know Requirements

A. What are the Consumer Confidence Report requirements?

A CWS must prepare and deliver to its customers an annual Consumer Confidence Report (CCR) in accordance with requirements in 40 CFR 141 Subpart O. A CCR provides customers with information about their local drinking water quality as well as information regarding the water system compliance with drinking water regulations. Under this proposal CWSs would be required to report detected PFAS in their CCR; specifically, PFOA, PFOS, PFHxS, HFPO–DA, PFNA, and PFBS, and the HI for the mixtures of PFHxS, HFPO–DA, PFNA, and PFBS.

B. What are the public notification (PN) requirements?

As part of SDWA, the Public Notification (PN) rule ensures that consumers will know if there is a problem with their drinking water. Notices alert consumers if there is risk to public health. They also notify customers: If the water does not meet drinking water standards; if the water system fails to test its water; if the system has been granted a variance (use of less costly technology); or if the system has been granted an exemption (more time to comply with a new regulation).

All PWSs must give the public notice for all violations of NPDWRs and for other situations. Under this proposal, EPA is proposing that violations of the three MCLs in the proposal would be designated as Tier 2 and as such, PWSs would be required to comply with 40 CFR 141.203. Per 40 CFR 141.203(b)(1), notification of an MCL violation should be provided as soon as practicable but no later than 30 days after the system learns of the violation.

XI. Treatment Technologies

Water systems with PFAS levels that exceed the MCLs proposed would need to take action to provide drinking water which meets the NPDWR by the compliance dates established in the rule when final. For example, systems may install water treatment or consider other options such as source remediation or connecting to an uncontaminated water system. While conventional treatment technologies are unable to remove PFOS, PFOA, PFNA, PFHxS, PFBS, or HFPO–DA to levels protective of public health (McCleaf et al., 2017), there are technologies currently available that effectively remove these and other PFAS.

Section 1412(b)(4)(E) of SDWA requires that the Agency ''list the technology, treatment techniques, and other means which the Administrator finds to be feasible for purposes of meeting [the MCL],'' which are referred to as BATs. These BATs are used by states to establish conditions for source water variances under Section 1415(a). Section 1412(b)(4)(E)(ii) also requires that the Agency identify small system compliance technologies (SSCTs), which are affordable treatment technologies, or other means that can achieve compliance with the MCL (or treatment technique [TT], where applicable).

A. What are the best available technologies?

The Agency identifies the BATs as those meeting the following criteria: (1) The capability of a high removal efficiency; (2) a history of full-scale operation; (3) general geographic applicability; (4) reasonable cost based on large and metropolitan water systems; (5) reasonable service life; (6) compatibility with other water treatment processes; and (7) the ability to bring all the water in a system into compliance. The Agency is proposing the following technologies as BAT for PFAS removal from drinking water based its review of the treatment and cost literature (USEPA, 2023g):

- GAC
- AIX
- High pressure membranes (RO and NF)

Operationally, GAC and AIX are sorptive processes meaning a process where one substance becomes attached to another. Sorption is typically composed of absorption where one substance is incorporated into another, adsorption where one substance is incorporated onto another, or ion exchange (IX) where an aqueous ion (the contaminant) is traded for a different less dangerous ion (typically chloride in AIX) on an insoluble matrix. Sorptive processes pour feed water through a vessel filled with a sorbent known as a contactor. The operation continues until the sorbent no longer effectively removes the target contaminant; this is when the contaminant ''breaks through'' the treatment process. At this point, the sorbent must be disposed then replaced or regenerated. The length of time until the sorbent must be replaced or regenerated is known as bed life and is a critical factor in the cost effectiveness of sorptive technology. One bed life measurement is the water volume that can be treated before breakthrough and is measured in bed volumes (BV). BVs are how many times the sorbent (*i.e.,* media) can be filled in the bed in which the sorbent resides before contaminant breakthrough. EPA estimates GAC treatment will be sufficiently available to support cost-effective compliance with this proposed regulation, and requests comment on whether additional guidance on applicable circumstances for GAC treatment is needed.

High pressure membranes are a separation process where feed water is split into two streams across a membrane. One stream has few contaminants or other solutes left in it and is known as permeate or produced water. The other stream contains the concentrated contaminant and other solutes which is known as concentrate, brine, retentate, or reject water. Membrane flux is how much permeate is produced for a given surface area and time; different system configurations operating at the same flux produce differing quantities of finished water. This means that membrane systems with differing configurations cannot be directly compared based on flux. Flux can be reduced during membrane fouling which is where things accumulate on or in the membrane. Fouling can require membrane cleaning and replacement or operational changes.

There are also non-treatment options which may be used for compliance such as replacing a PFAS-contaminated drinking water source with a new uncontaminated source (*e.g.,* a new well), or purchasing compliant water from another system. Conventional and most advanced water treatment methods are ineffective at removing PFAS (Rahman et al., 2014). Further information on the proposed BATs is provided below.

1. Granular Activated Carbon

GAC is a separation process where contaminants become attached to specially treated carbon with a high surface area. The GAC manufacturing process can accept any highly carbonaceous material as an input such as bituminous coal, lignite coal, peat, wood, coconut shells, and peach pits. Activation is predominantly a thermal process, although it may also be a chemical process, that creates as well as

enlarges pores generating a porous structure with a large surface area per unit mass. Literature suggests that the primary mechanisms of adsorption include both hydrophobic and electrostatic interactions (Ateia et al., 2019). In addition to removing PFAS, GAC can remove contaminants including taste and odor compounds, natural organic matter (NOM), VOCs, SOCs, DBP precursors, and radon. Organic compounds with high molecular weights are also readily adsorbable.

Demonstrated PFAS removal efficiencies can exceed >99 percent and can achieve concentrations less than 4 ng/L (Forrester and Bostardi, 2019; Zeng et al., 2020; Westreich et al., 2018; Belkouteb et al., 2020; Woodard et al., 2017; and Hopkins et al., 2018). During the operation, carbon is removed from the system periodically, for disposal or regeneration, based on treatment objectives. Several factors affect bed life, including the presence of competing contaminants such as nitrate and the carbon type used. Most studies found that natural or dissolved organic matter (NOM/DOM) interferes with PFAS sorption, in general, and its presence dramatically lowers treatment efficacy (McNamara et al., 2018; Pramanik et al., 2015; Yu et al., 2012). The lowered treatment effectiveness was found to be less pronounced for HFPO–DA than for perfluoroalkyl carboxylic acid (PFCA) C7 and above for GAC (Park et al., 2020).

Reactivation is a process that removes organic compounds from adsorption sites on GAC enabling reuse. Although different methods are available for GAC reactivation, the process most commonly involves high temperature thermal treatment in a specialized facility such as a multiple hearth furnace or rotary kiln (Matthis and Carr, 2018; USEPA, 2023g). Reactivated carbon can become totally exhausted with other contaminants not removed during reactivation and must be replaced. However, for GAC, the loss of approximately 10 percent of the media due to abrasion within the reactivation process can result in a somewhat steady state for performance as new GAC is added each time to replace the lost GAC. Systems may decide to dispose of GAC (*i.e.,* operate on a 'throw-away' basis) instead of reactivating the media. GAC can be a cost-effective treatment option despite needing to dispose of contaminated carbon.

2. Anion Exchange

AIX is a separation process where an anion in the aqueous phase is exchanged for an ion attached to an exchange resin. Similar to GAC, AIX uses contactors. These contactors, however, are filled with a bed of beads or gel known as resin instead of carbon. As feed water moves through the resin, an anionic contaminant, such as PFAS exchanges, for an anion, typically chloride, on the resin. For PFAS compounds, vendors generally recommend using PFAS-selective resins (Boodoo, 2018; Boodoo et al., 2019; Lombardo et al., 2018; Woodard et al., 2017). AIX may also have a beneficial effect by removing other undesirable anions from the treated water such as nitrate or sulfate.

Demonstrated PFAS removal efficiencies may be >99 percent and can achieve concentrations less than 4 ng/L (Dixit et al., 2021; Dixit et al., 2020; Zeng et al., 2020; Liu, 2017; Kumarasamy et al., 2020; Arevalo et al., 2014; and Yan et al., 2020). The operation continues until enough of the resin's available IX sites have ions from the feed water and the resin no longer effectively removes the target contaminant, also known as ''breaks through.'' At this point, the resin must be disposed and replaced or regenerated. The length of time until resin must be replaced or regenerated is known as bed life and is a critical factor in the cost effectiveness of IX as a treatment technology. Several factors affect bed life, including the presence of competing ions such as nitrate and the resin type used.

Conventional regeneration solutions are not generally effective for restoring the capacity of PFAS-selective resins (Liu and Sun, 2021). Regeneration may be possible using organic solvents (Boodoo, 2018; Zaggia et al., 2016) or proprietary methods (Woodard et al., 2017). These alternative regeneration practices are generally practical or cost-effective only with very high influent concentrations, such as in remediation settings. Therefore, in drinking water applications using PFAS-selective resin, vendors recommend a single-use approach where the spent resin is disposed and replaced with fresh resin (Boodoo, 2018; Lombardo et al., 2018). Exhausted resin must be disposed; due to the difficulties mentioned earlier and vendor recommendation, resins are often operated on a 'throw-away' basis. This operational mode avoids generating spent regenerant liquid residuals. AIX can be a cost-effective treatment option.

3. High Pressure Membranes (RO and NF)

RO and NF are membrane separation processes where water is forced through a membrane at greater than osmotic pressure. The water that transverses the membrane is known as permeate or produce water, and has few solutes left in it; the remaining water is known as concentrate, brine, retentate, or reject water and forms a waste stream with concentrated solutes. NF has a less dense active layer than RO, which enables lower operating pressures but also makes it less effective at removing contaminants. In drinking water treatment, these membranes are most often used in a spiral-wound configuration that consists of several membrane envelopes, layered with feed spacers, and rolled together in and around a central collection tube. Feed pressures for NF membranes are typically in the range of 50 to 150 pounds per square inch (psi). Feed pressures for RO membranes are in the range of 125 to 300 psi in low pressure applications (such as PFAS removal) but can be as high as 1,200 psi in applications such as seawater desalination (USEPA, 2023d). RO may remove other contaminants including arsenic and chromium-VI.

RO and NF may achieve PFAS removal >99 percent (Lipp et al., 2010; Horst et al., 2018; Liu et al., 2021; Dickenson and Higgins, 2016; Steinle-Darling et al., 2008; Boonya-Atichart et al., 2016; Appleman et al., 2014; Thompson et al., 2011; CDM Smith, 2018; Dickenson and Higgins, 2016; and Dowbiggin et al., 2021). While water quality affects process design (*e.g.,* recovery rate, cleaning frequency, and antiscalant selection), it has relatively little effect on PFAS removal percent. High pressure membranes generate a relatively large concentrate stream, which will contain PFAS as well as other rejected dissolved species, which will require disposal or additional treatment. The large concentrate stream also means less treated water is available for distribution (*e.g.,* 70 to 85 percent of source water), which is a disadvantage for systems with limited water supply.

B. PFAS Co-Removal

AIX and GAC are effective at removing PFAS and there is generally a linear relationship between PFAS chain length and removal efficiency shifted by functional group (McCleaf et al., 2017; Sörengård et al., 2020). Perfluoroalkyl sulfonates (PFSA), such as PFOS, are removed with greater efficiency than the corresponding PFCA, such as PFOA, of the same carbon backbone length (Appleman et al., 2014; Du et al., 2014; Eschauzier et al., 2012; Ochoa-Herrera and Sierra-Alvarez, 2008; Zaggia et al., 2016). Generally, for a given water type and concentration, a PFSA is removed

about as well as a PFCA which has two more fully perfluorinated carbons in its backbone. For example, PFHxS (six carbon backbone and a sulfonic acid functional group) is removed about as well as PFOA (eight carbon backbone and a carboxylate head) and perfluorohexanoic acid (PFHxA) (six carbon backbone with a carboxylate head) is removed approximately as well as PFBS (four carbon backbone and a sulfonic acid functional group). Additionally, the compounds with longer carbon chain displayed a smaller percentage decrease in average removal efficiency over time (McCleaf et al., 2017).

The three technologies discussed above have all been demonstrated to be effective in removing all six PFAS proposed for regulation as part of this rulemaking. As discussed in section VII.C. of this preamble, PFAS have been shown to co-occur. Hence, where the six PFAS being regulated today occur in concentrations above their respective regulatory standards there is also an increased probability of other unregulated PFAS being present. Further, since these same technologies also remove other long-chain and higher carbon/higher molecular weight PFAS EPA expects this rulemaking will provide additional public health benefits and protection by removing unregulated PFAS that may have adverse health effects. While EPA has not quantified those benefits as part of this rulemaking, the Agency believes these important secondary benefits further enhance public protection offered by this proposed regulation.

C. Management of Treatment Residuals

As part of EPA's BAT evaluation, the Agency assesses the availability of studies of full-scale treatment of residuals that fully characterize residual waste streams and disposal options. At present, the most likely management option for spent material containing PFAS is reactivation for GAC and incineration for spent IX resin. For disposal of RO/NF membrane concentrate, most systems use surface water discharge or discharge to sanitary sewer. The large volume of residuals is a well-known obstacle to adoption of membrane separation technology in general. For more information on current residuals management practices, see *Best Available Technologies and Small System Compliance Technologies for Per- and Polyfluoroalkyl Substances (PFAS) in Drinking Water* (USEPA, 2023g) or *Managing and Treating Per- and Polyfluoroalkyl Substances (PFAS) in Membrane Concentrates* (Tow et al., 2021).

EPA recognizes that future actions through several statutory authorities other than SDWA may have direct or indirect implications for drinking water treatment facilities and some actions may prevent or reduce PFAS entering drinking water sources. EPA is addressing PFAS through statutory authorities including the CERCLA, Resource Conservation and Recovery Act (RCRA), Toxic Substances Control Act (TSCA), Clean Water Act, Clean Air Act, and Emergency Planning and Community Right-to-Know Act (EPCRA). For example, as part of EPA's PFAS Strategic Roadmap, EPA proposed certain PFAS be designated as CERCLA hazardous substances to require reporting of PFOA and PFOS releases, enhance the availability of data, and ensure agencies can recover cleanup costs (USEPA, 2022c). In the Strategic Roadmap, EPA has also committed to expanding research on and accelerating the deployment of emerging PFAS treatment, remediation, destruction, disposal, and control technologies (USEPA, 2022c). EPA's 2020 *Interim Guidance on the Destruction and Disposal of Perfluoroalkyl and Polyfluoroalkyl Substances and Materials Containing Perfluoroalkyl and Polyfluoroalkyl Substances* outlines the current state of the science on techniques and treatments that may be used to destroy or dispose of PFAS (USEPA, 2020b). In accordance with EPA's PFAS Strategic Roadmap, EPA anticipates releasing an updated version of the Guidance in 2023. As part of this rulemaking, EPA considered that in drinking water treatment, large volumes of spent GAC and ion exchange resin must be removed which does not lend itself to on-site storage over time. The disposal options identified in the Interim Guidance (USEPA, 2020b) are landfill disposal and thermal treatment.

Stakeholders have expressed concern to EPA that a hazardous substance designation for certain PFAS may limit their disposal options for drinking water treatment residuals (*e.g.,* spent media, concentrated waste streams) and/or potentially increase costs. Although EPA anticipates that designating chemicals as hazardous substances under CERCLA generally should not result in limits on for disposal of PFAS drinking water treatment residuals, EPA has estimated the treatment costs for systems both with the use of hazardous waste disposal and non-hazardous disposal options to assess the effects of potentially increased disposal costs. Specifically, EPA assessed the potential impact on PWS treatment costs associated with hazardous residual management requirements in a sensitivity analysis on the proposed option. Relative to the national analysis for the proposed option assuming non-hazardous disposal, the hazardous waste disposal assumption would increase PWS costs by 4% ($30 million annually) at the 3% discount rate and 5% ($61 million annually) at the 7% discount rate should spent media need to be disposed of as hazardous waste in the future because of separate EPA or State regulatory action. EPA's sensitivity analysis demonstrates that potential hazardous waste disposal requirements may increase PWS treatment costs marginally, however the increase in PWS costs are not significant enough to change the determination that benefits of the rulemaking justify the costs. These estimates are discussed in greater detail in the HRRCA section of this proposed rulemaking and in Appendix N of the Economic Analysis (USEPA, 2023i). These costs are limited to the disposal of the PFAS contaminated residuals and wastes. Results for small systems are presented in Section D of this preamble below. EPA is seeking public input related to PFAS treatment residual disposal in Section XIV of this preamble.

D. What are small system compliance technologies (SSCTs)?

EPA is proposing the SSCTs shown in Table 20. The table shows which of the BATs listed above are also affordable for each small system size category listed in Section 1412(b)(4)(E)(ii) of SDWA. The Agency identified these technologies based on an analysis of treatment effectiveness and affordability.

TABLE 20—PROPOSED SSCTS FOR PFAS REMOVAL

System size (population served)	GAC	IX	RO/NF	Point of use (POU) RO/NF [1]
25–500	Yes	Yes	No	Yes.
501–3,300	Yes	Yes	No	Yes.

TABLE 20—PROPOSED SSCTS FOR PFAS REMOVAL—Continued

System size (population served)	GAC	IX	RO/NF	Point of use (POU) RO/NF [1]
3,301–10,000	Yes	Yes	Yes	not applicable.[2]

Notes:
[1] POU RO is not currently listed as a compliance option because the regulatory options under consideration require treatment to concentrations below the current NSF International/American National Standards Institute (NSF/ANSI) certification standard for POU device removal of PFAS. However, POU treatment is reasonably anticipated to become a compliance option for small systems in the future if NSF/ANSI or other independent third-party certification organizations develop a new certification standard that mirrors EPA's proposed regulatory standard. The affordability conclusions presented here reflect the costs of devices certified under the current standard, not a future standard, which may change dependent on future device design.
[2] EPA's work breakdown structure (WBS) model for POU treatment does not cover systems larger than 3,300 people (greater than 1 million gallons per day [MGD] design flow), because implementing and maintaining a large-scale POU program is likely to be impractical.

The operating principle for POU RO devices is the same as centralized RO: Steric exclusion and electrostatic repulsion of ions from the charged membrane surface. In addition to a RO membrane for dissolved ion removal, POU RO devices often have a sediment pre-filter and a carbon filter in front of the RO membrane, a 3- to 5-gallon treated water storage tank, and a carbon filter between the tank and the tap.

EPA identified SSCTs using the affordability criteria methodology developed for drinking water rules (USEPA, 1998b). The analysis method is a comparison of estimated incremental household costs for PFAS treatment to an expenditure margin, which is the difference between baseline household water costs and a threshold equal to 2.5% of median household income (MHI). Table 21 shows the expenditure margins derived for the analysis. These margins show the cap on affordable incremental annual expenditures.

TABLE 21—EXPENDITURE MARGINS FOR SSCT AFFORDABILITY ANALYSIS

System size (population served)	MHI [1] A	Affordability threshold [2] B = 2.5% × A	Baseline water cost [3] C	Expenditure margin D = B − C
25–500	$55,377	$1,384	$507	$877
501–3,300	53,596	1,340	587	753
3,301–10,000	58,717	1,468	613	855

Notes:
[1] MHI based on U.S. Census Bureau's American Community Survey five-year estimates (United States Census Bureau, 2010) stated in 2010 dollars, adjusted to 2020 dollars using the Consumer Price Index (CPI) (for all items) for areas under 2.5 million persons.
[2] Affordability threshold equals 2.5 percent of MHI.
[3] Household water costs derived from 2006 Community Water System Survey (USEPA, 2009c), based on residential revenue per connection within each size category, adjusted to 2020 dollars based on the CPI for All Urban Consumers: Water and Sewer and Trash Collection Services in U.S. City Average.

Table 21 shows the estimates of per-household costs by treatment technology and size category generated using the treatment cost method described in section XII.B of this preamble as well as Best Available Technologies and Small System Compliance Technologies for Perchlorate in Drinking Water (USEPA, 2019c) and Technologies and Costs for Treating Perchlorate-Contaminated Waters (USEPA, 2018c). Based on the results presented in Table 22, EPA identified candidate technologies available for which costs do not exceed the corresponding expenditure margin and, therefore, meet the SSCT affordability criterion. As such, EPA has determined that affordable SSCTs are available, and the Agency is not proposing any variance technologies.

TABLE 22—TOTAL ANNUAL COST PER HOUSEHOLD FOR CANDIDATE TECHNOLOGIES

System size (population served)	GAC	IX	RO/NF	POU RO/NF [1]
25–500	$395 to $727	$376 to $645	$3,711 to $4,676	$317 to $326.
501–3,300	$139 to $332	$133 to $235	$608 to $1,169	$299 to $300.
3,301–10,000	$136 to $329	$121 to $218	$326 to $462	not applicable.[2]

Notes:
[1] POU RO is not currently a compliance option because the regulatory options under consideration require treatment to concentrations below the current NSF/ANSI certification standard for POU device removal of PFAS. However, POU treatment is reasonably anticipated to become a compliance option for small systems in the future if NSF/ANSI or other independent third-party certification organizations develop a new certification standard that mirrors EPA's proposed regulatory standard. Costs presented here reflect the costs of devices certified under the current testing standard, not a future standard, which may change dependent on future device design.
[2] EPA's WBS model for POU treatment does not cover systems larger than 3,300 people (greater than 1 MGD design flow), because implementing and maintaining a large-scale POU program is likely to be impractical.

The results discussed above assume management of spent GAC and spent IX resin using current typical management practices (reactivation for GAC and incineration for resin). EPA is in the process of proposing some PFAS be designated as hazardous substances under CERCLA and listed as hazardous constituents under RCRA. If finalized, neither of these actions should result in limiting disposal options and how PFAS containing waste, including spent GAC or resin, is required to be managed. However, waste management facilities may, at their own discretion, refuse to accept PFAS-containing materials or drinking water treatment operations may choose to send spent GAC and resin containing PFAS to facilities permitted to treat and/or dispose of hazardous wastes. To consider the implications of this possibility, EPA has developed an assessment of the current unit costs for disposing spent treatment materials and the costs associated with their disposal as hazardous waste. Table 23 shows the resulting cost per household if systems dispose of these residuals as hazardous waste. Although costs would increase somewhat compared to if they do not treat the spent media as hazardous waste, those increases are not significant enough to change the conclusions about affordability.

TABLE 23—TOTAL ANNUAL COST PER HOUSEHOLD ASSUMING HAZARDOUS WASTE DISPOSAL FOR SPENT GAC AND RESIN

System size (population served)	GAC	IX
25–500	$417 to $827	$397 to $678.
501–3,300	$149 to $368	$138 to $243.
3,301–10,000	$146 to $360	$124 to $222.

In addition to the required analysis for small system affordability, EPA having received a number of recommendations from the SAB, the NDWAC, and other stakeholders, is exploring the use of alternative expenditure margins and other potential changes to the national level affordability methodology to better understand the cost impacts of new standards on low income and disadvantaged households served by small drinking water systems. The Agency conducted supplemental affordability analyses using alternative metrics suggested to EPA by stakeholders to demonstrate the potential affordability implications of the proposed NPDWR on the determination of affordable technologies for small systems at the national level of analysis.

As required under the 1996 amendments to SDWA, EPA lists treatment technologies for small systems that are affordable and that achieve compliance with the regulatory standard. As part of its affordability analysis for the proposed PFAS rule, EPA determined that there are several affordable treatment technologies for small systems, including GAC, IX, RO, and POU RO.[5] EPA is seeking public comment on the national level analysis of affordability of SSCTs and specifically on the potential methodologies presented. EPA's national small system affordability determination can be found in Section 9.12.1 of the EA. EPA's supplementary affordability analyses can be found in Section 9.12.2 of the EA. EPA is also seeking comment on whether there are additional technologies which are viable for PFAS removal to the proposed MCLs as well as any additional costs which may be associated with non-treatment options such as water rights procurement. Finally, EPA is seeking comment on the benefits from using treatment technologies (such as reverse osmosis and GAC) that have been demonstrated to co-remove other types of contaminants found in drinking water and whether employing these treatment technologies are sound strategies to address PFAS and other regulated or unregulated contaminants that may co-occur in drinking water.

Following finalization of the PFAS NPDWR, EPA will work with primacy agencies to provide assistance to support implementation of the rule. EPA requests comment on the type of assistance that would help small public water systems identify laboratories that can perform the required monitoring, evaluate treatment technologies and determine the most appropriate way to dispose of PFAS contaminated residuals and waste the systems may generate when implementing the rule.

[5] POU RO is not currently a compliance option because the regulatory options under consideration require treatment to concentrations below 70 ppt total of PFOA and PFOS, the current certification standard for POU devices. However, POU treatment is anticipated to become a compliance option for small systems in the future should NSF/ANSI or another accredited third-party certification entity develop a new certification standard that mirrors (or is demonstrated to treat to concentrations lower than) EPA's proposed regulatory standard. The affordability conclusions for POU RO should be considered preliminary because they reflect the costs of devices certified under the current standard, not a future standard.

XII. Rule Implementation and Enforcement

A. What are the requirements for primacy?

This section describes the regulations, procedures, and policies primacy entities must adopt, or have in place, to implement the PFAS rule, when it is final. States, Territories, and Tribes must continue to meet all other conditions of primacy in 40 CFR part 142. Section 1413 of SDWA establishes requirements that primacy entities (States or Indian Tribes) must meet to maintain primary enforcement responsibility (primacy) for its PWSs. These include:

- Adopting drinking water regulations that are no less stringent than Federal NPDWRs in effect under sections 1412(a) and 1412(b) of the Act;
- Adopting and implementing adequate procedures for enforcement;
- Keeping records and making reports available on activities that EPA requires by regulations;
- Issuing variances and exemptions (if allowed by the State) under conditions no less stringent than allowed by SDWA Sections 1415 and 1416; and
- Adopting and being capable of implementing an adequate plan for the provision of safe drinking water under emergency situations.

40 CFR part 142 sets out the specific program implementation requirements for States to obtain primacy for the Public Water System Supervision (PWSS) Program, as authorized under 1413 of the Act.

Under 40 CFR 142.12(b), all primacy States/territories/tribes would be required to submit a revised program to

EPA for approval within two years of promulgation of any final PFAS NPDWR or could request an extension of up to two years in certain circumstances. To be approved for a program revision, primacy States/territories/tribes would be required to adopt revisions at least as stringent as the revised PFAS-related provisions in 40 CFR 141.6 (Effective Dates); 40 CFR 141.900 subpart Z (Control of Per- and Polyfluoroalkyl Substances); 40 CFR 141.50 (Maximum Contaminant Level Goals for organic contaminants); 40 CFR 141.60 (Maximum Contaminant Levels for organic contaminants); appendix A to subpart O ([Consumer Confidence Report] Regulated contaminants); Appendix A to Subpart Q ((NPDWR violations and other situations requiring public notice); Appendix B to Subpart Q (Standard health effects language for public notification); 40 CFR 142.62 (Variances and exemptions from the MCLs for organic and inorganic contaminants); and 40 CFR 142.16 (Primary Enforcement Responsibility).

B. What are the primacy agency record keeping requirements?

The current regulations in 40 CFR 142.14 require primacy agencies to keep records of analytical results to determine compliance, system inventories, sanitary surveys, state approvals, vulnerability and waiver determinations, monitoring requirements, monitoring frequency decisions, enforcement actions, and the issuance of variances and exemptions. If primacy agencies grant monitoring waivers, they must record monitoring results that are below the rule trigger level in order to ensure systems are eligible for reduced monitoring schedules (for additional discussion on the rule trigger level and monitoring waivers, please see sections VIII and IX of this preamble). The primacy agency record keeping requirements remain unchanged and would apply to PFAS as with any other regulated contaminant.

C. What are the primacy agency reporting requirements?

Currently, primacy agencies must report to EPA information under 40 CFR 142.15 regarding violations, variances and exemptions, enforcement actions, and general operations of State PWS programs. These reporting requirements remain unchanged and would apply to PFAS as with any other regulated contaminant. However, the proposed PFAS MCLs, when final, could result in a greater frequency of reporting by certain primacy agencies. See discussion of PRA compliance in Section XV of this preamble for more information.

D. Exemptions and Extensions

In accordance with SDWA § 1412(b)(10), a state or EPA may grant an extension of up to two additional years to comply with an NPDWR's MCL(s) if the state or EPA determines an individual system needs additional time for capital improvements. At this time, EPA does not intend to provide a two-year extension nationwide. However, States may provide such an extension on an individual system basis. Where a State or EPA chooses to provide such an extension, the system would have up to five years from the rule's promulgation date to meet the MCLs. In addition, under SDWA § 1416, EPA or primacy Agencies may grant an exemption for systems meeting specified criteria that provides an additional period for compliance not to exceed 3 years beyond the time period provided by Section 1412(b)(10). Under SDWA § 1416(a), a State which has primary enforcement responsibility may exempt any public water system within the State's jurisdiction from any requirement respecting a MCL of any applicable NPDWR upon a finding that:

- Due to compelling factors (which may include economic factors, including qualification of the public water system as a system serving a disadvantaged community pursuant to section 300j–12(d) of this title), the public water system is unable to comply with such contaminant level or treatment technique requirement, or to implement measures to develop an alternative source of water supply,
- The public water system was in operation on the effective date of such contaminant level or treatment technique requirement, or, for a system that was not in operation by that date, only if no reasonable alternative source of drinking water is available to such new system,
- The granting of the exemption will not result in an unreasonable risk to health; and
- Management or restructuring changes (or both) cannot reasonably be made that will result in compliance with this subchapter, or if compliance cannot be achieved, improve the quality of the drinking water.

In addition, SDWA § 1416(b)(2)(C) also allows for a small system that does not serve a population of more than 3,300 and which needs financial assistance for the necessary improvements to receive up to three additional two-year exemptions, not to exceed a total of six years provided that the system establishes that it is taking all practicable steps to meet the requirements. In total, this means that some systems could potentially exceed the MCLs' numerical standards for up to 14 years after the rule promulgation date (or approximately 2037/2038). EPA is seeking comment as to whether there are specific conditions that should be mandated for systems to be eligible for exemptions under 1416 to ensure that they are only used in rare circumstances where there are no other viable alternatives and what those conditions would be. EPA has established requirements for EPA issuance of these exemptions in 40 CFR 142 subpart F but could consider amending these requirements or establishing requirements for State exemptions.

XIII. Health Risk Reduction and Cost Analysis

This section summarizes the HRRCA for the proposed NPDWR for PFAS, which is written in compliance with SDWA section 1412(b)(3)(C). Section 1412(b)(3)(C)(i) lists the analytical elements required in a HRRCA applicable to a NPDWR that includes an MCL. The prescribed HRRCA elements include:

(1) Quantifiable and nonquantifiable health risk reduction benefits;

(2) quantifiable and nonquantifiable health risk reduction benefits from reductions in co-occurring contaminants;

(3) quantifiable and nonquantifiable costs that are likely to occur solely as a result of compliance;

(4) incremental costs and benefits of rule options;

(5) effects of the contaminant on the general population and sensitive subpopulations including infants, children, pregnant women, the elderly, and individuals with a history of serious illness;

(6) any increased health risks that may occur as a result of compliance, including risks associated with co-occurring contaminants; and

(7) other relevant factors such as uncertainties in the analysis and factors with respect to the degree and nature of the risk.

Based on this analysis and pursuant to Section 1412(b)(4)(C) of SDWA, the Administrator has determined that the quantified and nonquantifiable benefits of the proposed regulation justify the costs. The complete HRRCA for the proposed NPDWR, Economic Analysis for the Proposed PFAS Rule, is hereafter referred to as the ''Economic Analysis,'' and can be found in the docket at USEPA (2023j).

For purposes of this Economic Analysis, EPA assumes that the NPDWR

will be promulgated by the end of 2023. This analysis follows the standard NPDWR compliance schedule with regulatory requirements taking effect three years after the date on which the regulation is promulgated. If EPA issues a final NPDWR for PFAS by the end of 2023, EPA assumes actions to comply with the rule, including installation of treatment technologies, will occur by 2026. Based on an assumed mean human lifespan of 80 years, EPA evaluates costs and benefits under the proposed rule through the year 2104. EPA selected this period of analysis to capture health effects from chronic illnesses that are typically experienced later in life (*i.e.,* cardiovascular disease [CVD] and cancer). EPA annualized the future estimated streams of costs and benefits symmetrically over this same period of analysis. Capital costs for installation of treatment technologies are spread over the useful life of the technologies. EPA does not capture effects of compliance with the proposed rule after the end of the period of analysis. Costs and benefits discussed in this section are presented as annualized present values in 2021 dollars. EPA determined the present value of these costs using discount rates of 3 and 7 percent, which are discount rates prescribed by the (OMB Circular A–4, 2003).

Estimates of PFAS occurrence used for cost-benefit modeling rely on a Bayesian hierarchical estimation model of national PFAS occurrence in drinking water (Cadwallader et al., 2022) discussed in Section VII.E. of this preamble above. The model was fitted using sample data from systems participating in PFAS sampling under UCMR 3 and included systems serving over 10,000 customers, as well as a subset of 800 smaller systems. A best-fit model was selected using sample data to define occurrence and co-occurrence of PFOA, PFOS, PFHpA, and PFHxS in water systems stratified by system size and incorporating variations within and among systems. Sample data were derived from state-level datasets as well as from UCMR 3. For more information on EPA's occurrence model, please see Section VII.E. of this preamble and USEPA (2023e).

In the Economic Analysis, EPA analyzes the costs and benefits of the proposed rule, as well as several regulatory alternatives. EPA analyzed the costs and benefits of setting individual MCLs for PFOA and PFOS at 4.0 ppt, 5.0 ppt, and 10.0 ppt, referred to as Option 1a, Option 1b, and Option1c, respectively. EPA assessed these options in the Economic Analysis to understand the impact of less stringent PFOA and PFOS MCLs, and the Agency is asking for comment on these assessments in the Economic Analysis. The Agency is also inviting comment on whether establishing a traditional MCLG and MCL for PFHxS, HFPO–DA, PFNA, and PFBS instead of or in addition to the HI approach would change public health protection, improve clarity of the rule, or change costs. EPA has not separately presented changes in quantified costs and benefits for these approaches. If EPA adds individual MCLs in addition to using the HI approach, EPA anticipates there will be no change in costs and benefits relative to the proposed rule (*i.e.,* the same number of systems will incur identical costs to the proposed option and the same benefits will be realized). EPA has not separately quantified the benefits and costs for the alternative approach to regulate PFHxS, PFNA, PFBS, and HFPO–DA with individual MCLs instead of the HI. However, EPA expects both the costs and benefits would be reduced under this approach as fewer systems may be triggered into treatment and its associated costs. Additionally, systems that exceed one or more of the individual MCLs will treat to a less stringent and public health-protective standard. Furthermore, under the proposed option, PWSs are required to treat based on the combined occurrence of PFAS included in the HI which considers the known and additive toxic effects and occurrence and likely co-occurrence of PFAS compounds in the HI, providing more public health protection compared to an individual MCL approach.

Section A summarizes the entities which would be affected by the rule and provides a list of key data sources used to develop EPA's baseline water system characterization. Section B provides an overview of the cost-benefit model used to estimate the national costs and benefits of the proposed rule. Section C summarizes the methods EPA used to estimate costs associated with the proposed rule. Section D summarizes the methods EPA used to estimate quantified benefits associated with the proposed rule. Section E provides a summary of the nonquantifiable benefits associated with reductions in exposure to both PFOA and PFOS. Section F provides a qualitative summary of benefits expected to result from the removal of PFAS included in the HI component of the proposed regulation and additional co-removed PFAS contaminants. Section G summarizes benefits expected to result from DBPs co-removal. Section H provides a comparison of cost and benefit estimates. Section I summarizes and discusses key uncertainties in the cost and benefit analyses. Quantified costs and benefits for the proposed option and alternative options considered are summarized in section H, specifically Tables 66–69. Tables 70–71 summarizes the non-quantified B–Cs and assess the potential impact of non-quantifiable benefits and costs on the overall B–C estimate. Finally, Section J presents the Administrator's cost-benefit determination for the proposed rule.

A. Affected Entities and Major Data Sources Used To Develop the Baseline Water System Characterization

The entities potentially affected by the proposed PFAS regulation are primacy agencies and PWSs. PWSs subject to the proposed rule requirements are either CWSs or NTNCWSs. These water systems can be publicly or privately owned. PWSs subject to the rule would be required to meet the MCL and comply with monitoring and reporting requirements. Primacy agencies would be required to adopt and enforce the drinking water standard as well as the monitoring and reporting requirements.

Both PWSs and primacy agencies are expected to incur costs, including administrative costs, monitoring and reporting costs, and—in a limited number of cases—anticipated costs to reduce PFAS levels in drinking water to meet this proposed NPDWR using treatment or nontreatment options. Section C of this preamble below summarizes the method EPA used to estimate these costs.

The systems that reduce PFAS concentrations will reduce associated health risks. EPA developed methods to estimate the potential benefits of reduced PFAS exposure among the service populations of systems with PFAS levels exceeding the proposed drinking water standard. Section B of this preamble below summarizes this method used to estimate these benefits.

In its Guidelines for Preparing Economic Analyses, EPA characterizes the ''baseline'' as a reference point that reflects the world without the proposed regulation (USEPA, 2010). It is the starting point for estimating the potential benefits and costs of the proposed PFAS NPDWR. EPA used a variety of data sources to develop the baseline drinking water system characterization for the regulatory analysis. Table 24 lists the major data sources and the baseline data derived from them. Additional detailed descriptions of these data sources and how they were used in the characterization of baseline conditions

can be found in the Chapter 4 of USEPA (2023j).

TABLE 24—DATA SOURCES USED TO DEVELOP BASELINE WATER SYSTEM CHARACTERIZATION

Data source	Baseline data derived from the source
SDWIS/Federal version fourth quarter 2021 Q4 "frozen" dataset [1].	• *Water System Inventory:* PWS inventory, including system unique identifier, population served, number of service connections, source water type, and system type. • *Population and Households Served:* PWS population served. • *Treatment Plant Characterization:* Number of unique treatment plant facilities per system, which are used as a proxy for entry points when UCMR 3 sampling site data are not available.
UCMR 3 (USEPA, 2017)	• *Treatment Plant Characterization:* Number of unique entry point sampling sites, which are used as a proxy for entry points. • *Treatment Plant Characterization:* PFAS concentration data collected as part of UCMR 3.
Independent state sampling programs	• *Treatment Plant Characterization:* PFAS concentration data collected by states. These data supplemented the occurrence modeling for systems included in UCMR 3.
Six-Year Review 4 Information Collection Request (SYR4 ICR) Occurrence Dataset (2012–2019).	• *Treatment Plant Characterization:* Total organic carbon (TOC).
Geometries and Characteristics of Public Water Systems (USEPA, 2000f).	• *Treatment Plant Characterization:* Design and average daily flow per system.
2006 Community Water System Survey (CWSS; USEPA, 2009c).	• *Public Water System Labor Rates:* PWS labor rates.

Notes:
[1] Contains information extracted on January 14, 2022.

B. Overview of the Cost-Benefit Model

EPA's existing SafeWater Cost Benefit Model (CBX) was designed to calculate the costs and benefits associated with setting a new or revised MCL. Since the proposed PFAS rule simultaneously regulates multiple PFAS contaminants, EPA developed a new model version called the SafeWater Multi-Contaminant Benefit Cost Model (MCBC) to efficiently handle more than one contaminant. SafeWater MCBC, allows for inputs that include differing mixtures of contaminants based on available occurrence data as well as multiple regulatory thresholds. The model structure allows for assignment of compliance technology or technologies that achieve all regulatory requirements and estimates costs and benefits associated with multiple PFAS contaminant reductions. SafeWater MCBC is designed to model co-occurrence, sampling, treatment, and administrative costs, and simultaneous contaminants reductions and resultant benefits. The modifications to the SafeWater model are consistent with the methodology that was developed in the single MCL SafeWater CBX Beta version that was peer reviewed. More detail on the modifications to the SafeWater model can be found in Section 5.2 of EPA's economic analysis.

The costs incurred by a PWS depend on water system characteristics; SDWIS/Fed provides information on PWS characteristics that typically define PWS categories, or strata, for which EPA has develops cost estimates in rulemakings, including system type (CWS, NTNCWS), number of people served by the PWS, the PWS's primary raw water source (ground water or surface water), the PWS's ownership type (public or private), and PWS state.

Because EPA does not have complete PWS-specific data across the approximately 49,000 CWSs and 17,000 NTNCWSs in SDWIS/Fed for many of the baseline and compliance characteristics necessary to estimate costs and benefits, such as design and average daily flow rates, water quality characteristics, treatment in-place, and labor rates, EPA adopted a ''model PWS'' approach. SafeWater MCBC creates model PWSs by combining the PWS-specific data available in SDWIS/Fed with data on baseline and compliance characteristics available at the PWS category level. In some cases, the categorical data are simple point estimates. In this case, every model PWS in a category is assigned the same value. In other cases, where more robust data representing system variability are available, the category-level data include a distribution of potential values. In the case of distributional information, SafeWater MCBC assigns each model PWS a value sampled from the distribution. These distributions are assumed to be independent.

For a list of PWS characteristics that impact model PWS compliance costs, please see Chapter 5 of USEPA (2023j). These data include inventory data specific to each system and categorical data for which randomly assigned values are based on distributions that vary by category (*e.g.,* ground water and surface water TOC distributions or compliance forecast distributions that vary by system size category).

Once model PWSs are created and assigned baseline and compliance characteristics, SafeWater MCBC estimates the quantified costs and benefits of compliance for each model PWS under the proposed rule. Because of this model PWS approach, SafeWater MCBC does not output any results at the PWS level. Instead, the outputs are cost and benefit estimates for 36 PWS categories, or strata. Each PWS category is defined by system type (CWS and NTNCWS), primary water source (ground or surface), and size category. Note EPA does not report state specific strata although state location is utilized in the SafeWater MCBC model (*e.g.,* current state level regulatory limits on PFAS in drinking water). The detailed output across these strata can be found in the Chapter 5 of USEPA (2023j).

For each PWS category, the model then calculates summary statistics that describe the costs and benefits associated with the proposed rule compliance. These summary statistics include total quantified costs of the proposed regulatory requirement, total quantified benefits of the proposed regulatory requirement, the variability in PWS-level costs (*e.g.,* 5th and 95th percentile system costs), and the variability in household-level costs.

C. Method for Estimating Costs

This section summarizes the cost elements and estimates total cost of compliance for the proposed PFAS NPDWR discounted at 3 and 7 percent. EPA estimated the costs associated with

monitoring, administrative requirements, and both treatment and non-treatment compliance actions associated with the proposed rule (USEPA, 2023j).

1. Public Water System (PWS) Costs

a. PWS Treatment and Non-Treatment Compliance Costs

EPA estimated costs associated with engineering, installing, operating, and maintaining PFAS removal treatment technologies, including treatment media replacement and spent media destruction or disposal, as well as non-treatment actions that some PWSs may take in lieu of treatment, such as constructing new wells in an uncontaminated aquifer or interconnecting with and purchasing water from a neighboring PWS. EPA used SafeWater MCBC to apply costs for one of the treatment technologies or non-treatment alternatives at each entry point in a PWS estimated to be out of compliance with the proposed rule. For each affected entry point, SafeWater MCBC selected from among the compliance alternatives using a decision tree procedure, described in more detail in USEPA (2023g) and (2023h). Next, the model estimated the cost of the chosen compliance alternative using outputs from EPA's WBS cost estimating models.

Specifically, EPA used cost equations generated from the following models (USEPA, 2023h):

- the GAC WBS model (USEPA, 2021g);
- the PFAS-selective IX WBS model (USEPA, 2021h);
- the centralized RO/NF WBS model (USEPA, 2021i); and
- the non-treatment WBS model (USEPA, 2021j).

The Technologies and Costs (T&C) document (USEPA, 2023h) provides a comprehensive discussion of each of the treatment technologies, their effectiveness, and the WBS cost models as well as the equations used to calculate treatment costs. In total, there are nearly 3,500 individual cost equations across the categories of capital and operation and maintenance (O&M) cost, water source, component level, flow, bed life (for GAC and IX), residuals management scenarios (for GAC and IX), and design type (for GAC).

b. Decision Tree for Technology Selection

For entry points at which baseline PFAS concentrations exceed regulatory thresholds, the decision tree selects a treatment technology or non-treatment alternative using a two-step process that both:

- Determines whether to include or exclude each alternative from consideration given the entry point's characteristics and the regulatory option selected, and
- Selects from among the alternatives that remain viable based on percentage distributions derived, in part, from data on recent PWS actions in response to PFAS contamination.

Inputs to the decision tree include the following:

- Influent concentrations of individual PFAS contaminants in ppt;
- Entry point design flow in MGD;
- TOC influent to the new treatment process in mg/L.

EPA relied on information from the national PFAS occurrence model to inform influent PFAS concentrations. EPA relied on Geometries and Characteristics of Public Water Supplies (USEPA, 2000f) and SDWIS inventory information to derive entry point design flow. SafeWater MCBC selects influent TOC using the distribution shown below in Table 25.

TABLE 25—FREQUENCY DISTRIBUTION TO ESTIMATE INFLUENT TOC

[In mg/L]

Percentile	Surface water	Ground water
0.05	0.65	0.35
0.15	1.1	0.48
0.25	1.38	0.5
0.35	1.6	0.5
0.45	1.85	0.58
0.5	1.97	0.69
0.55	2.14	0.75
0.65	2.54	1
0.75	3.04	1.39
0.85	3.63	2.01
0.95	4.81	3.8

Source: EPA's analysis of TOC concentrations in the SYR4 ICR database.

Step 1 of the decision tree uses these inputs to determine whether to include or exclude each treatment alternative from consideration in the compliance forecast. For the treatment technologies (GAC, IX, and RO/NF), this determination is based on estimates of each technology's performance given available data about influent water quality and the regulatory option under consideration.

EPA assumes a small number of PWSs may be able to take non-treatment actions in lieu of treatment. The viability of non-treatment actions is likely to depend on the quantity of water being replaced. Therefore, the decision tree considers non-treatment only for entry points with design flows less than or equal to 3.536 MGD. EPA's WBS model for non-treatment does not generate costs for flows greater than this value, so the decision tree excludes non-treatment actions from consideration above this flow. EPA estimates approximately 2% of systems of this size will develop new wells and approximately 6–7% of systems will elect to interconnect with another system to achieve compliance.

Step 2 of the decision tree selects a compliance alternative for each entry point from among the alternatives that remain in consideration after Step 1. Table 26 shows the initial compliance forecast that is the starting point for this step. The percentages in Table 26 consider data presented in the T&C document (USEPA, 2023h) on actions PWSs have taken in response to PFAS contamination.

To date, the majority of PWSs for which data are available have installed GAC (USEPA, 2023h). The data in USEPA (2023h) suggest that an increasing share of PWSs have selected IX in response to PFAS since the first full-scale system treated with PFAS-selective IX in 2017. EPA expects this trend to continue, so the initial percentages include adjustments to

account for this expectation. In addition, the performance of GAC is affected by the presence of TOC, as further described in the cost chapter of the Economic Analysis (USEPA, 2023j). Accordingly, the table includes adjusted distributions for systems with higher influent TOC.

The list of compliance alternatives in Table 26 does not include POU RO for small systems. At this time, EPA is not including POU RO in the national cost estimates because the regulatory options under consideration require treatment to concentrations below 70 ppt PFOA and PFOS summed, the current certification standard for POU devices. Therefore, the decision tree excludes POU RO from consideration and proportionally redistributes the percentages among the other alternatives.

TABLE 26—INITIAL COMPLIANCE FORECAST

Compliance alternative	Design flow less than 1 MGD		Design flow 1 to less than 10 MGD		Design flow greater than or equal to 10 MGD	
	TOC less than or equal to 1.5 mg/L (%)	TOC greater than 1.5 mg/L (%)	TOC less than or equal to 1.5 mg/L (%)	TOC greater than 1.5 mg/L (%)	TOC less than or equal to 1.5 mg/L (%)	TOC greater than 1.5 mg/L (%)
GAC	75	57	77	50	85	50
PFAS-selective IX	11	29	10	37	10	45
Central RO/NF	5	5	5	5	5	5
Interconnection	7	7	6	6	0	0
New Wells	2	2	2	2	0	0

Source: EPA's analysis of TOC concentrations in the SYR4 ICR database.
Note: EPA is not including POU RO in the national cost estimates for the proposed rule because the regulatory options under consideration require treatment to concentrations below 70 ppt PFOA and PFOS summed, the current certification standard for POU devices. Therefore, the decision tree excludes POU RO from consideration and proportionally redistributes the percentages among the other alternatives.

If all the compliance alternatives remain in consideration after Step 1, the decision tree uses the forecast shown in Table 26 above. If Step 1 eliminated on one or more of the alternatives, the decision tree proportionally redistributes the percentages among the remaining alternatives and uses the redistributed percentages.

EPA's approach to estimating GAC and IX performance under the proposed option and all alternatives considered is discussed in detail within the cost chapter of the Economic Analysis (USEPA, 2023j).

c. Work Breakdown Structure Models

The WBS models are spreadsheet-based engineering models for individual treatment technologies, linked to a central database of component unit costs. EPA developed the WBS model approach as part of an effort to address recommendations made by the Technology Design Panel (TDP), which convened in 1997 to review the Agency's methods for estimating drinking water compliance costs (USEPA, 1997). The TDP consisted of nationally recognized drinking water experts from EPA, water treatment consulting companies, public as well as private water utilities along with suppliers, equipment vendors, and Federal along with State regulators in addition to cost estimating professionals.

In general, the WBS approach involves breaking a process down into discrete components for the purpose of estimating unit costs. The WBS models represent improvements over past cost estimating methods by increasing comprehensiveness, flexibility, and transparency. By adopting a WBS-based approach to identify the components that should be included in a cost analysis, the models produce a more comprehensive assessment of the capital and operating requirements for a treatment system.

Each WBS model contains the work breakdown for a particular treatment process and preprogrammed engineering criteria and equations that estimate equipment requirements for user-specified design requirements (*e.g.,* system size and influent water quality). Each model also provides unit and total cost information by component (*e.g.,* individual items of capital equipment) and totals the individual component costs to obtain a direct capital cost. Additionally, the models estimate add-on costs (*e.g.,* permits and land acquisition), indirect capital costs, and annual O&M costs, thereby producing a complete compliance cost estimate.

Primary inputs common to all the WBS models include design flow and average daily flow in MGD. Each WBS model has default designs (input sets) that correspond to specified categories of flow, but the models can generate designs for many other combinations of flows. To estimate costs for PFAS compliance, EPA fit cost curves to the WBS estimates across a range of flow rates, which is described in Chapter 5 of the Economic Analysis (USEPA, 2023j).

Another input common to all the WBS models is ''component level'' or ''cost level.'' This input drives the selection of materials for items of equipment that can be constructed of different materials. For example, a low-cost system might include fiberglass pressure vessels and polyvinyl chloride (PVC) piping. A high-cost system might include stainless steel pressure vessels and stainless-steel piping. The component level input also drives other model assumptions that can affect the total cost of the system, such as building quality and heating and cooling. The component level input has three possible values: low cost, mid cost, and high cost. The components used in each of the estimated component/cost levels provide the treatment efficacy needed to meet the regulatory requirements. Note that the level of component (*e.g.,* plastic versus resin or stainless-steel piping and vessels) may impact the capital replacement rate but does not interfere with treatment efficacy. EPA estimates the three levels of cost because it has found that the choice of materials associated with the installation of new treatment equipment often varies across drinking water systems. These systems may, for example, choose to balance capital cost with staff familiarity with certain materials and existing treatment infrastructure. Given this experience, EPA models the potential variability in treatment cost based on the three component/cost levels. To estimate costs for PFAS treatment, EPA generated separate cost equations for each of the

three component levels, thus creating a range of cost estimates for use in national compliance cost estimates. EPA requests comment on the range of component levels assumed and the range of estimated PFAS treatment costs.

The third input common to all the WBS models is system automation, which allows the design of treatment systems that are operated manually or with varying degrees of automation (*i.e.,* with control systems that reduce the need for operator intervention). Cost equations for system automation are described in Chapter 5 of the Economic Analysis (USEPA, 2023j).

The WBS models generate cost estimates that include a consistent set of capital, add-on, indirect, and O&M costs. Table 27 below identified these cost elements, which are common to all the WBS models and included in the cost estimates below. As described below and summarized in Tables 28–31 the WBS models also include technology-specific cost elements. The documentation for the WBS models provide more information on the methods and assumptions in the WBS models to estimate the costs for both the technology-specific and common cost elements (USEPA, 2021g; USEPA, 2021h; USEPA, 2021i; and USEPA, 2021j). WBS model accuracy is described in Chapter 5 of the Economic Analysis (USEPA, 2023j).

TABLE 27—COST ELEMENTS INCLUDED IN ALL WBS MODELS

Cost category	Components included
Direct Capital Costs	• Technology-specific equipment (*e.g.,* vessels, basins, pumps, treatment media, piping, valves). • Instrumentation and system controls. • Buildings. • Residuals management equipment.
Add-on Costs	• Land. • Permits. • Pilot testing.
Indirect Capital Costs	• Mobilization and demobilization. • Architectural fees for treatment building. • Equipment delivery, installation, and contractor's overhead and profit. • Sitework. • Yard piping. • Geotechnical. • Standby power. • Electrical infrastructure. • Process engineering. • Contingency. • Miscellaneous allowance. • Legal, fiscal, and administrative. • Sales tax. • Financing during construction. • Construction management.
O&M Costs: Technology-specific.	• Operator labor for technology-specific tasks (*e.g.,* managing backwash and media replacement). • Materials for O&M of technology-specific equipment. • Technology-specific chemical usage. • Replacement of technology-specific equipment that occurs on an annual basis (*e.g.,* treatment media). • Energy for operation of technology-specific equipment (*e.g.,* mixers).
O&M Costs: Labor	• Operator labor for O&M of process equipment. • Operator labor for building maintenance. • Managerial and clerical labor.
O&M Costs: Materials	• Materials for maintenance of booster or influent pumps. • Materials for building maintenance.
O&M Costs: Energy	• Energy for operation of booster or influent pumps. • Energy for lighting, ventilation, cooling, and heating.
O&M Costs: Residuals	• Residuals management operator labor, materials, and energy. • Residuals disposal and discharge costs.

The GAC model can generate costs for two types of design:

• Pressure designs where the GAC bed is contained in stainless steel, carbon steel, or fiberglass pressure vessel;

• Gravity designs where the GAC bed is contained in open concrete basins.

Table 28 shows the technology-specific capital equipment and O&M requirements included in the GAC model. These items are in addition to the common WBS cost elements listed in the Cost Elements Included in All WBS Models table above.

TABLE 28—TECHNOLOGY-SPECIFIC COST ELEMENTS INCLUDED IN THE GAC MODEL

Cost category	Major components included
Direct Capital Costs	• Booster pumps for influent water. • Contactors (either pressure vessels or concrete basins) that contain the GAC bed. • Tanks and pumps for backwashing the contactors. • GAC transfer and storage equipment. • Spent GAC reactivation facilities (if on-site reactivation is selected). • Associated piping, valves, and instrumentation.

TABLE 28—TECHNOLOGY-SPECIFIC COST ELEMENTS INCLUDED IN THE GAC MODEL—Continued

Cost category	Major components included
O&M Costs: Labor	• Operator labor for contactor maintenance (for gravity GAC designs). • Operator labor for managing backwash events. • Operator labor for backwash pump maintenance (if backwash occurs weekly or more frequently). • Operator labor for GAC transfer and replacement.
O&M Costs: Materials	• Materials for contactor maintenance (accounts for vessel relining in pressure designs, because GAC can be corrosive, and for concrete and underdrain maintenance in gravity designs). • Materials for backwash pump maintenance (if backwash occurs weekly or more frequently). • Replacement virgin GAC (loss replacement only if reactivation is selected).
O&M Costs: Energy	• Operating energy for backwash pumps.
O&M Costs: Residuals	• Discharge fees for spent backwash. • Fees for reactivating spent GAC (if off-site reactivation is selected). • Labor, materials, energy, and natural gas for regeneration facility (if on-site reactivation is selected). • Disposal of spent GAC (if disposal is selected).

For small systems (less than 1 MGD) using pressure designs, the GAC model assumes the use of package treatment systems that are pre-assembled in a factory, mounted on a skid, and transported to the site. The model estimates costs for package systems by costing all individual equipment line items (*e.g.,* vessels, interconnecting piping and valves, instrumentation, and system controls) in the same manner as custom-engineered systems. This approach is based on vendor practices of partially engineering these types of package plants for specific systems (*e.g.,* selecting vessel size to meet flow and treatment criteria). The model applies a variant set of design inputs and assumptions that are intended to simulate the use of a package plant and that reduce the size and cost of the treatment system. USEPA (2021g) provides complete details on the variant design assumptions used for package plants.

To generate the GAC cost equations, EPA used the following key inputs in the GAC model:

- For pressure designs, two vessels in series with a minimum total empty bed contact time (EBCT) of 20 minutes;
- For gravity designs, contactors in parallel with a minimum total EBCT of 20 minutes; and
- Bed life varying over a range from 5,000 to 150,000 BV.

EPA generated separate cost equations for two spent GAC management scenarios:

- Off-site reactivation under current RCRA non-hazardous waste regulations
- Off-site disposal as a hazardous waste and replacement with virgin GAC (*i.e.,* single use operation).

The T&C document (USEPA, 2023h) provides a comprehensive discussion of these and other key inputs and assumptions.

Table 29 shows the technology-specific capital equipment and O&M requirements included in the PFAS selective IX model. These items are in addition to the common WBS cost elements listed in the Cost Elements Included in All WBS Models table above.

TABLE 29—TECHNOLOGY-SPECIFIC COST ELEMENTS INCLUDED IN THE PFAS-SELECTIVE IX MODEL

Cost category	Major components included
Direct Capital Costs	• Booster pumps for influent water. • Pre-treatment cartridge filters. • Pressure vessels that contain the resin bed. • Tanks and pumps for initial rinse and (optionally) backwash of the resin bed. • Tanks (with secondary containment), pumps and mixers for delivering sodium hydroxide for use in post-treatment corrosion control (optional). • Associated piping, valves, and instrumentation.
O&M Costs: Labor	• Operator labor for pre-treatment filters. • Operator labor for managing backwash/rinse events. • Operator labor for backwash pump maintenance (only if backwash occurs weekly or more frequently). • Operator labor for resin replacement.
O&M Costs: Materials	• Replacement cartridges for pre-treatment filters. • Materials for backwash pump maintenance (only if backwash occurs weekly or more frequently). • Chemical usage (if post-treatment corrosion control is selected). • Replacement virgin PFAS-selective resin.
O&M Costs: Energy	• Operating energy for backwash/rinse pumps.
O&M Costs: Residuals	• Disposal of spent cartridge filters. • Discharge fees for spent backwash/rinse. • Disposal of spent resin.

For small systems (less than 1 MGD), the PFAS-selective IX model assumes the use of package treatment systems that are pre-assembled in a factory, mounted on a skid, and transported to the site. The IX model estimates costs for package systems using an approach similar to that described for the GAC model, applying a variant set of inputs and assumptions that reduce the size and cost of the treatment system. USEPA (2021j) provides complete details on the variant design assumptions used for IX package plants.

To generate the IX cost equations, EPA used the following key inputs in the PFAS-selective IX model:

- Two vessels in series with a minimum total EBCT of 6 minutes.
- Bed life varying over a range from 20,000 to 440,000 BV.

EPA generated separate cost equations for two spent resin management scenarios:

- Spent resin managed as non-hazardous and sent off-site for incineration.
- Spent resin managed as hazardous and sent off-site for incineration.

The T&C document (USEPA, 2023h) provides a comprehensive discussion of these and other key inputs and assumptions.

Table 30 shows the technology-specific capital equipment and O&M requirements included in the model for RO/NF (USEPA, 2021i). These items are in addition to the common WBS cost elements listed in listed in the Cost Elements Included in All WBS Models table above.

TABLE 30—TECHNOLOGY-SPECIFIC COST ELEMENTS INCLUDED IN THE RO/NF MODEL

Cost category	Major components included
Direct Capital Costs	• High-pressure pumps for influent water and (optionally) interstage pressure boost. • Pre-treatment cartridge filters. • Tanks, pumps, and mixers for pretreatment chemicals. • Pressure vessels, membrane elements, piping, connectors, and steel structure for the membrane racks. • Valves for concentrate control and (optionally) per-stage throttle. • Tanks, pumps, screens, cartridge filters, and heaters for membrane cleaning. • Equipment, including dedicated concentrate discharge piping, for managing RO/NF concentrate and spent cleaning chemicals. • Associated pipes, valves, and instrumentation.
O&M Costs: Labor	• Operator labor for pre-treatment filters. • Operator labor for routine O&M of membrane units. • Operator labor to maintain membrane cleaning equipment.
O&M Costs: Materials	• Replacement cartridges for pre-treatment filters. • Chemical usage for pretreatment. • Maintenance materials for pre-treatment, membrane process, and cleaning equipment. • Replacement membrane elements. • Chemical usage for cleaning.
O&M Costs: Energy	• Energy for high-pressure pumping.
O&M Costs: Residuals	• Disposal costs for spent cartridge filters and membrane elements.

The RO/NF model includes three default ground waters and three default surface waters, ranging from high to low quality (*i.e.,* from low to high total dissolved solids and scaling potential). To generate the cost equations, EPA used the model's default high-quality influent water parameters to reflect the incremental cost of removing PFAS from otherwise potable water. EPA used the following additional key inputs and assumptions:

- For systems larger than approximately 0.5 MGD, target recovery rates of 80 percent for ground water and 85 percent for surface water.
- Target recovery rates of 70 to 75 percent for smaller systems.
- Flux rates of 19 gallons per square foot per day (gfd) for ground water and 15 to 16 gfd for surface water.
- Direct discharge of RO/NF concentrate to a permitted outfall on a non-potable water body (*e.g.,* ocean or brackish estuary) via 10,000 feet of buried dedicated piping.

The T&C document (USEPA, 2023h) provides a comprehensive discussion of these and other key inputs and assumptions.

USEPA (2021j) provides a complete description of the engineering design process used by the WBS model for nontreatment actions. The model can estimate costs for two nontreatment alternatives: interconnection with another system and drilling new wells to replace a contaminated source. Table 31 below shows the technology-specific capital equipment and O&M requirements included in the model for each alternative.

TABLE 31—TECHNOLOGY-SPECIFIC COST ELEMENTS INCLUDED IN THE NON-TREATMENT MODEL

Cost category	Major components included for interconnection	Major components included for new wells
Direct Capital Costs	• Booster pumps or pressure reducing valves (depending on pressure at supply source). • Concrete vaults (buried) for booster pumps or pressure reducing valves. • Interconnecting piping (buried) and valves	• Well casing, screens, and plugs. • Well installation costs including drilling, development, gravel pack, and surface seals. • Well pumps. • Piping (buried) and valves to connect the new well to the system.
O&M Costs: Labor	• Operator labor for O&M of booster pumps or pressure reducing valves (depending on pressure at supply source) and interconnecting valves.	• Operator labor for operating and maintaining well pumps and valves.
O&M Costs: Materials	• Cost of purchased water • Materials for maintaining booster pumps (if required by pressure at supply source).	• Materials for maintaining well pumps.
O&M Costs: Energy	• Energy for operating booster pumps (if required by pressure at supply source).	• Energy for operating well pumps.

To generate the cost equations, EPA used the following key inputs in the non-treatment model for interconnection:

- An interconnection distance of 10,000 feet;

• Minimal differences in pressure between the supplier and the purchasing system, so that neither booster pumps nor pressure reducing valves are needed;
• An average cost of purchased water of $3.00 per thousand gallons in 2020 dollars.

For new wells, EPA used the following key inputs:
• A maximum well capacity of 500 gallons per minute (gpm), such that one new well is installed per 500 gpm of water production capacity required;
• A well depth of 250 feet;
• 500 feet of distance between the new wells and the distribution system.

The T&C document (USEPA, 2023h) provides a comprehensive discussion of these and other key inputs and assumptions.

d. Incremental Treatment Costs

EPA has estimated the national level costs of the proposed rule associated with PFOA, PFOS, and PFHxS. Given the available occurrence data for the other compounds in the proposed rule (PFNA, HFPO–DA, and PFBS) and the regulatory thresholds under consideration, EPA did not model national costs associated with potential HI exceedances as a direct result of these compounds. To assess the potential impact of these compounds, EPA conducted an analysis of the additional, or incremental, system level impact that occurrence of these compounds would have on treatment costs. To do so, EPA used a model system approach. For further detail on the assumptions and findings of EPA's analysis of incremental costs, please see Chapter 5 in USEPA (2023j) and Appendix N in USEPA (2023i).

e. PWS Implementation Administration Costs

EPA estimated PWS costs associated with one-time actions to begin implementation of the rule including reading and understanding the rule and attending training provided by primacy agencies. EPA assumes that systems will conduct these activities during years one through three of the period of analysis. Table 32 lists the data elements and corresponding values associated with calculating the costs of these one-time implementation administration actions.

TABLE 32—IMPLEMENTATION ADMINISTRATION STARTUP COSTS

[2021$]

Data element description	Data element value
The labor rate per hour for systems	$35.48 (systems ≤3,300). $37.84 (systems 3,301–10,000). $39.94 (systems 10,001–50,000). $41.70 (systems 50,001–100,000). $48.74 (systems >100,000).
The average hours per system to read and adopt the rule	4 hours per system.
The average hours per system to attend one-time training provided by primacy agencies	16 hours per system (systems ≤3,300). 32 hours per system (systems >3,300).

Estimated national annualized PWS implementation and administration startup costs for the proposed option are $1.71 million (3% discount rate) and $3.52 million (7% discount rate). National annualized PWS cost estimates are further summarized in Table 37.

f. PWS Monitoring Costs

EPA assumes that the proposed rule will require initial and long-term monitoring. As Table 33 shows, surface and ground water systems serving 10,000 or more people will collect one sample each quarter, at each entry point, during the initial 12-month monitoring period. Surface water systems serving 10,000 or fewer people are also required to collect a quarterly sample at each entry point during the initial 12-month period. Ground water systems that serve 10,000 or fewer people will be required to sample once at each entry point on a semi-annual basis for the first 12-month monitoring period.

Long-term monitoring requirements differ based on two factors: (1) system size, and (2) whether a system can demonstrate during the initial monitoring period that they are ''reliably and consistently'' below the proposed MCLs for PFAS. EPA has set the PWS size threshold at systems serving 3,300 or fewer people. The threshold for systems to demonstrate that they are ''reliably and consistently'' below the proposed MCLs is set at a trigger level of one-third the MCLs for PFOA or PFOS (1.3 ppt) or the HI (0.33). For systems below the trigger level values during the initial 12-month monitoring period and in future long-term monitoring periods may conduct triennial monitoring. Systems serving 3,300 or fewer people will collect one triennial sample per entry point. Systems providing water for more than 3,300 people will take one sample in two consecutive quarters at each entry point, totaling two samples in each triennial period. For systems with concentration values at or above the trigger level regardless of system size, a quarterly sample must be taken at each entry point.

For any samples that have a detection, the system will analyze the field reagent blank samples collected at the same time as the monitoring sample. Systems that have an MCL exceedance will collect one additional sample from the relevant entry point to confirm the results.

TABLE 33—INITIAL AND LONG-TERM SAMPLING FREQUENCIES PER SYSTEM ENTRY POINT

Initial monitoring system size category	Initial 12-month monitoring period	Long-term monitoring system size category	Long-Term monitoring: [a] PFAS detection <1.3 ppt (PFOA or PFOS) or HI <0.33	Long-term monitoring: [1] PFAS detection ≥1.3 ppt (PFOA or PFOS) or HI ≥0.33
≤10,000	Surface Water: 1 sample every quarter Ground Water: 1 sample every 6-month period.	≤3,300	1 triennial sample	1 sample every quarter.

TABLE 33—INITIAL AND LONG-TERM SAMPLING FREQUENCIES PER SYSTEM ENTRY POINT—Continued

Initial monitoring system size category	Initial 12-month monitoring period	Long-term monitoring system size category	Long-Term monitoring: [a] PFAS detection <1.3 ppt (PFOA or PFOS) or HI <0.33	Long-term monitoring: [1] PFAS detection ≥1.3 ppt (PFOA or PFOS) or HI ≥0.33
>10,000	Surface Water and Ground Water: 1 sample every quarter.	>3,300	2 triennial samples (1 sample in two consecutive quarters).	1 sample every quarter.

Notes:
[1] EPA used the following thresholds to distinguish whether PFAS concentrations are reliably and consistently below the MCL: PFOA and PFOS—one-third the MCL for each option; PFHxS—one-third the health benchmark of 9 ppt or 3 ppt.

For the national cost analysis, EPA assumes that systems with either UCMR 5 data or monitoring data in the State PFAS Database (see Section 3.1.4 in USEPA, 2023j) will not need to conduct the initial year of monitoring. As a simplifying assumption for the cost analysis, EPA assumes all systems serving a population of greater than 3,300 have UCMR 5 data and those with 3,300 or less do not. For the State PFAS Database, EPA relied on the PWSIDs stored in the database and exempted those systems from the first year of monitoring in the cost analysis. Note these simplifying assumptions may result in a small underestimate of initial monitoring costs. Under UCMR 5, individual water systems would be able to request the full release of data from the labs for use in determining their compliance monitoring frequency. PWSs may be able to use these lab analyses to demonstrate a ''below trigger level'' concentration using the UCMR 5 analyses by following up with the lab for a more detailed results report. EPA requests comment on these underlying assumptions.

EPA used system-level distributions, as described in Cadwallader et al. (2022), to simulate entry point concentrations and estimate PFAS occurrence relative to the proposed option MCLs and trigger levels. Based on these occurrence distributions, EPA estimates that the large majority of water systems subject to the proposed rule (approx. 52,000) will have EPs with concentrations below the proposed trigger level and would conduct reduced monitoring on a triennial basis. EPA estimates that the remainder of water systems subject to the proposed rule (approx. 14,000) will have at least one or more EPs exceed the proposed trigger level and therefore would be required to conduct quarterly monitoring. EPA requests comment on these estimates and the underlying assumptions.

EPA assumes that systems with an MCL exceedance will implement actions to comply with the MCL by the compliance date. EPA assumes a treatment target, for systems required to treat for PFAS, that includes a margin of safety so finished water PFAS levels at these systems are 80 percent of the MCL or HI. This target is insufficient to meet the triennial monitoring threshold. Therefore, systems implementing treatment will continue with quarterly monitoring. All other systems that do not have PFAS concentrations at or below the trigger level threshold will also continue quarterly monitoring.

For all systems, the activities associated with the sample collection in the initial 12-month monitoring period are the labor burden and cost for the sample collection and analysis, as well as a review of the sample results. Table 34 presents the data elements and corresponding values associated with calculating sampling costs during the implementation monitoring period.

TABLE 34—SAMPLING COSTS

[2021$]

Data element description	Data element value
The labor rate per hour for systems	$35.48 (systems ≤3,300). $37.84 (systems 3,301–10,000). $39.94 (systems 10,001–50,000). $41.70 (systems 50,001–100,000). $48.74 (systems >100,000).
The number of samples per entry point per monitoring round for the initial monitoring in Year 1	2 samples (Ground Water systems ≤10,000). 4 samples (all systems) [1].
The number of samples per entry point per long-term monitoring year for entry points that exceed the triennial monitoring threshold.	4 samples (all other systems).
The number of samples per entry point per long-term monitoring round for entry points that meet the triennial threshold.	1 sample (systems ≤3,300). 2 samples (systems >3,300).
The hours per sample to travel to sampling locations, collect samples, record any additional information, submit samples to a laboratory, and review results.	1 hour.
The laboratory analysis cost per sample for EPA Method 533	$376.
The laboratory analysis cost per sample for EPA Method 537.1	$302.
The laboratory analysis cost per sample for field reagent blank under EPA Method 533	$327.[2]
The laboratory analysis cost per sample for the field reagent blank under EPA Method 537.1 ...	$266. [2]

Notes:
[1] Systems greater than 3,300 will rely on UCMR 5 data and a subset of other systems will rely on data in the State PFAS Monitoring Database discussed in USEPA, 2023j.
[2] This incremental sample cost applies to all samples that exceed MDLs. EPA used the Method 537.1 detection limits to apply this cost because Method 533 does not include detection limits.

Estimated national annualized PWS sampling costs for the proposed option are $90.32 million (3 discount rate) and $92.97 million (7% discount rate). National annualized PWS cost estimates are further summarized in Table 37.

g. Treatment Administration Costs

Any system with an MCL exceedance adopts either a treatment or non-treatment alternative to comply with the proposed rule. The majority of systems are anticipated to install treatment technologies while a subset of systems will choose alternative methods. EPA assumes that systems will bear administrative costs associated with these treatment or non-treatment compliance actions (*i.e.,* permitting costs). EPA assumes that systems will install treatment in the fourth year of the period of analysis. Table 35 presents the data elements and corresponding values associated with calculating treatment administration costs.

TABLE 35—TREATMENT ADMINISTRATION COSTS

[2021$]

Data element description	Data element value
The labor rate per hour for systems	$35.48 (systems ≤3,300). $37.84 (systems 3,301–10,000). $39.94 (systems 10,001–50,000). $41.70 (systems 50,001–100,000). $48.74 (systems >100,000).
The hours per entry point for a system to notify, consult, and submit a permit request for treatment installation [a].	3 hours (systems ≤100) 5 hours (systems 101–500). 7 hours (systems 501–1,000). 12 hours (systems 1,001–3,300). 22 hours (systems 3,301–50,000). 42 hours (systems >50,000).
The hours per entry point for a system to notify, consult, and submit a permit request for source water change or alternative method [1].	6 hours.

Notes:
[1] EPA applied the cost per entry point for this economic analysis because the notification, consultation, and permitting process occurs for individual entry points.

h. Public Notification (PN) Costs

EPA's cost analysis assumes full compliance with the rule throughout the period of analysis and, as a result, EPA does not estimate costs for the PN requirements in the proposed rule for systems with certain violations. The proposed rule designates MCL violations for PFAS as Tier 2, which requires systems to provide PN as soon as practical, but no later than 30 days after the system learns of the violation. The system must repeat notice every three months if the violation or situation persists unless the primacy agency determines otherwise. At a minimum, systems must give repeat notice at least once per year. The proposed rule also designates monitoring and testing procedure violations as Tier 3, which requires systems to provide public notice not later than one year after the system learns of the violation. The system must repeat the notice annually for as long as the violation persists. For approximate estimates of the potential burden associated with Tier 2 and 3 PNs, please see USEPA (2023j).

i. Primacy Agency Costs

EPA assumes that primacy agencies will have upfront implementation costs as well as costs associated with system actions related to sampling and treatment. The activities that primacy agencies are expected to carry out under the proposed rule include:

- Reading and understanding the rule and adopting regulatory requirements,
- Providing primacy agency officials training for the rule implementation,
- Providing systems with training and technical assistance during the rule implementation,
- Reporting to EPA on an ongoing basis any PFAS-specific information under 40 CFR 142.15 regarding violations as well as enforcement actions and general operations of PWS programs,
- Reviewing the sample results during the implementation monitoring period and the SMF period, and
- Reviewing and consulting with systems on the installation of treatment technology or alternative methods, including source water change.

With the exception of the first four activities listed above, the primary agency burdens are incurred in response to action taken by PWSs; for instance, the cost to primacy agencies of reviewing sample results depends on the number of samples taken at each entry point by each system under an Agency's jurisdiction. Table 36 presents the data elements and corresponding values associated with calculating primacy agency costs.

TABLE 36—PRIMACY AGENCY COSTS

[2021$]

Data element description	Data element value
The labor rate per hour for primacy agencies [1]	$58.14.
The average hours per primacy Agency to read and understand the rule, as well as adopt regulatory requirements.	416 hours per primacy Agency.
The average hours per primacy Agency to provide initial training to internal staff	250 hours per primacy Agency.
The average hours per primacy Agency to provide initial training and technical assistance to systems.	2,080 hours per primacy Agency.
The average hours per primacy Agency to report annually to EPA information under 40 CFR 142.15 regarding violations, variances and exemptions, enforcement actions and general operations of State PWS programs.	0.
The hours per sample for a primacy Agency to review sample results	1 hour.

TABLE 36—PRIMACY AGENCY COSTS—Continued

[2021$]

Data element description	Data element value
The hours per entry point for a primacy agency to review and consult on installation of a TT[2] ..	3 hours (systems ≤100). 5 hours (systems 101–500). 7 hours (systems 501–1,000). 12 hours (systems 1,001–3,300). 22 hours (systems 3,301–50,000). 42 hours (systems >50,000).
The hours per entry point for a primacy agency to review and consult on a source water change[2].	4 hours.

Notes:

[1] In USBLS (2022), State employee wage rate of $33.91 from National Occupational Employment and Wage Estimates, United States, BLS SOC Code 19–2041, ''State Government, excluding schools and hospitals—Environmental Scientists and Specialists, Including Health,'' hourly mean wage rate. May 2020 data (published in March 2021): *https://www.bls.gov/oes/current/oes192041.htm.* Wages are loaded using a factor of 62.2 from the Bureau of Labor Statistics (BLS) Employer Costs for Employee Compensation report, Table 3, March 2020. Percent of total compensation—Wages and Salaries—All Workers—State and Local Government Workers (*https://www.bls.gov/news.release/archives/ecec_06182020.pdf*). See worksheet BLS Table 3. The final loaded wage is adjusted for inflation.

[2] EPA assumes that the proposed PFAS rule will have no discernable incremental burden for quarterly or annual reports to SDWIS/Fed.

Estimated national annualized primacy agency costs for the proposed option are $7.96 million (3% discount rate) and $8.76 million (7% discount rate). National annualized cost estimates are further summarized in Table 37.

In addition to the costs described above, a primacy agency may also have to review the certification of any Tier 2 or 3 PNs sent out by systems. EPA assumes full compliance with the proposed rule and therefore does not include this cost in national estimated cost totals but provides a brief discussion of the possible primacy agency burden associated with this component in USEPA (2023j).

In Table 37, EPA summarizes the total annualized quantified cost of the proposed option at both a 3 percent and 7 percent discount rate expressed in millions of 2021 dollars. The first three rows show the annualized PWS sampling costs, the annualized PWS implementation and administrative costs, and the annualized PWS treatment costs. The fourth row shows the sum of the annualized PWS costs. At a 3 percent discount rate, the expected annualized PWS costs are $769 million. The uncertainty range for annualized PWS costs are $699 million to $862 million. Finally, annualized primacy agency implementation and administrative costs are added to the annualized PWS costs to calculate the total annualized cost of the proposed option. At a 3 percent discount rate, the expected total annualized cost of the proposed rule is $777 million. The uncertainty range for the total annualized costs of the proposed rule is $706 million to $872 million. At a 7 percent discount rate, the expected total annualized cost of the proposed option is $1.211 billion, while the uncertainty range for the total annualized costs of the proposed option is $1.103 billion to $1.353 billion. Note as described in section j. Data Limitations and Uncertainties in the Cost Analysis below, given the available occurrence data for the other compounds in the proposed rule (PFNA, HFPO–DA, and PFBS) and the regulatory thresholds under consideration, EPA did not model national costs associated with potential HI exceedances as a direct result of these compounds; therefore, the additional treatment cost, from co-occurrence of PFNA, HFPO–DA, PFBS or other PFAS, at systems already required to treat because of PFOA, PFOS, or PFHxS MCL and HI exceedances are not quantitatively assessed in the national cost estimates. Nor are treatment costs for systems that exceed the HI based on the combined occurrence of PFNA, HFPO–DA, PFBS, and PFHxS (where PFHxS itself does not exceed 9 ppt) included in the national monetized cost estimates. These potential additional costs are described in Section 5.3.1.4 of USEPA (2023j) and Appendix N of USEPA (2023i).

In these sections of the Economic Analysis, EPA uses a model system approach to explore the potential costs of treatment at a system that: (1) has no detections of PFOA, PFOS, or PFHxS (modeled in the national analysis), but has occurrence of all the other PFAS included in the HI (HFPO–DA, PFBS, and PFNA), and (2) has occurrence of PFOA, PFOS, and PFHxS identical to the national model but also has occurrence of all the other PFAS included in the HI (HFPO–DA, PFBS, and PFNA). The first type of system represents additional systems that are not currently captured in the national costs but would incur treatment costs under the HI. The second type of system illustrates a range of potential incremental treatment costs for systems that are already treating to remove PFOA, PFOS, and/or PFHxS in the national cost analysis. EPA analyzed system costs for GAC, IX, and OR for two scenarios: high occurrence of the three PFAS not included in the national analysis and medium occurrence of those PFAS. The model system analysis found for IX and RO/NF that costs were slightly less or the same as modeled system treatment costs under a national cost scenario across both types of systems defined above, the medium and high PFAS scenarios, and across model system size categories. The assessment of GAC produced more variability in results. For systems that are not currently captured in the national costs but would incur treatment costs under the HI, EPA found under the medium PFAS concentrations cost would be the same or slightly less than a model system treating for the PFAS included in the national analysis. The systems representing the potential incremental treatment costs for systems that are already treating to remove PFOA, PFOS, and/or PFHxS in the national cost analysis, the model system analysis under the medium scenario found that costs of treatment would increase by 1–9 percent, depending on system size and other cost assumptions associated with bed life changes as a result of TOC assumptions. Under the high PFAS scenario across both types of systems GAC treatment costs were found to range from 0 to 77% higher than treatment of national PFAS values depending on system size and other costing assumptions like bed life. This high-end cost increase of 77 percent is unlikely to occur at a large number of systems given the assumed high levels of PFAS and the assumed high levels of

TOC at 2 mg/L. It is also likely that systems facing these GAC treatment cost will select IX or RO/NF as lower cost alternative treatments and therefore national cost estimates are unlikely to be substantially underestimated. EPA requests comment on these estimated impacts and the assumption that HI exceedances resulting from these additional compounds will not significantly impact overall compliance costs.

The national annualized costs below do not reflect costs of hazardous waste disposal for GAC and IX media. As a general matter, EPA notes that such wastes are not currently regulated under Federal law as a hazardous waste. To address stakeholder concerns, including those raised during the SBREFA process, EPA conducted a sensitivity analysis with an assumption of hazardous waste disposal for illustrative purposes only. As part of this analysis, EPA generated a second full set of unit cost curves that are identical to the curves used for the national cost analysis with the exception that spent GAC and spent IX resin are considered hazardous. EPA acknowledges that if Federal authorities later determine that PFAS-contaminated wastes require handling as hazardous wastes, the residuals management costs are expected to be higher. See Appendix N.2 of USEPA (2023j) for a sensitivity analysis describing the potential increase in costs associated with hazardous waste disposal (USEPA, 2023i).

TABLE 37—NATIONAL ANNUALIZED COSTS, PROPOSED OPTION

[PFOA and PFOS MCLs of 4.0 ppt and HI of 1.0; million $2021]

	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected value	95th Percentile [1]	5th Percentile [1]	Expected value	95th Percentile [1]
Annualized PWS Sampling Costs	$76.12	$90.32	$106.95	$78.54	$92.97	$109.19
Annualized PWS Implementation and Administration Costs	1.71	1.71	1.71	3.52	3.52	3.52
Annualized PWS Treatment Costs	617.05	676.56	762.05	1,008.88	1,105.66	1,232.92
Total Annualized PWS Costs [2 3 4]	698.90	768.57	861.78	1,096.29	1,202.09	1,341.19
Primacy Agency Rule Implementation and Administration Cost	6.86	7.96	9.18	7.67	8.76	10.04
Total Annualized Rule Costs [2 3 4]	705.85	776.54	871.50	1,102.71	1,210.91	1,352.71

Notes:

Detail may not add exactly to total due to independent rounding. Percentiles cannot be summed because cost components are not perfectly correlated.

[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 71. This range does not include the uncertainty described in Table 41.

[2] Total quantified national cost values do not include the incremental treatment costs associated with the co-occurrence of HFPO–DA, PFBS, and PFNA at systems required to treat for PFOA, PFOS, and PFHxS. The total quantified national cost values do not include treatment costs for systems that would be required to treat based on HI exceedances apart from systems required to treat because of PFHxS occurrence alone. See Appendix N, Section 3 of the Economic Analysis (USEPA, 2023i) for additional detail on co-occurrence incremental treatment costs and additional treatment costs at systems with HI exceedances.

[3] PFAS-contaminated wastes are not considered hazardous wastes at this time and therefore total costs reported in this table do not include costs associated with hazardous waste disposal of spent filtration materials. To address stakeholder concerns about potential costs for disposing PFAS-contaminated wastes as hazardous should they be regulated as such in the future, EPA conducted a sensitivity analysis with an assumption of hazardous waste disposal for illustrative purposes only. See Appendix N, Section 2 of the Economic Analysis (USEPA, 2023i) for additional detail.

[4] See Table 70 for a list of the nonquantifiable costs, and the potential direction of impact these costs would have on the estimated monetized total annualized costs in this table.

In Table 38, Table 39, and Table 40, EPA summarizes the total annualized quantified cost of options 1a, 1b, and 1c, respectively.

TABLE 38—NATIONAL ANNUALIZED COSTS, OPTION 1a

[PFOA and PFOS MCLs of 4.0 ppt; million $2021]

	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected value	95th Percentile [1]	5th Percentile[1]	Expected value	95th Percentile [1]
Annualized PWS Sampling Costs	$75.54	$89.45	$105.44	$77.76	$92.10	$108.29
Annualized PWS Implementation and Administration Costs	1.71	1.71	1.71	3.52	3.52	3.52
Annualized PWS Treatment Costs	601.03	661.40	745.31	984.54	1,079.05	1,205.22
Total Annualized PWS Costs [2 3]	680.76	752.56	848.52	1,066.70	1,174.69	1,314.49
Primacy Agency Rule Implementation and Administration Cost	6.83	7.89	9.12	7.59	8.69	9.96
Total Annualized Rule Costs [2 3]	687.54	760.45	857.04	1,078.01	1,183.41	1,324.41

Notes:

Detail may not add exactly to total due to independent rounding. Percentiles cannot be summed because cost components are not perfectly correlated.

[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 71. This range does not include the uncertainty described in Table 41.

[2] PFAS-contaminated wastes are not considered hazardous wastes at this time and therefore total costs reported in this table do not include costs associated with hazardous waste disposal of spent filtration materials. To address stakeholder concerns about potential costs for disposing PFAS-contaminated wastes as hazardous should they be regulated as such in the future, EPA conducted a sensitivity analysis with an assumption of hazardous waste disposal for illustrative purposes only. See Appendix N, Section 2 of the Economic Analysis (USEPA, 2023i) for additional detail.

[3] See Table 70 for a list of the nonquantifiable costs, and the potential direction of impact these costs would have on the estimated monetized total annualized costs in this table.

TABLE 39—NATIONAL ANNUALIZED COSTS, OPTION 1b

[PFOA and PFOS MCLs of 5.0 ppt; million $2021]

	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected value	95th Percentile [1]	5th Percentile [1]	Expected value	95th Percentile [1]
Annualized PWS Sampling Costs	$66.40	$78.38	$93.04	$68.77	$80.92	$95.70
Annualized PWS Implementation and Administration Costs	1.71	1.71	1.71	3.52	3.52	3.52
Annualized PWS Treatment Costs	479.50	527.00	597.91	778.40	853.94	960.05
Total Annualized PWS Costs [2 3]	549.52	607.08	686.67	854.64	938.38	1,052.52
Primacy Agency Rule Implementation and Administration Cost	6.03	6.94	8.03	6.74	7.69	8.84
Total Annualized Rule Costs [2 3]	555.94	614.03	694.18	860.01	946.07	1,064.56

Notes:

Detail may not add exactly to total due to independent rounding. Percentiles cannot be summed because cost components are not perfectly correlated.

[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 71. This range does not include the uncertainty described in Table 41.

[2] PFAS-contaminated wastes are not considered hazardous wastes at this time and therefore total costs reported in this table do not include costs associated with hazardous waste disposal of spent filtration materials. To address stakeholder concerns about potential costs for disposing PFAS-contaminated wastes as hazardous should they be regulated as such in the future, EPA conducted a sensitivity analysis with an assumption of hazardous waste disposal for illustrative purposes only. See Appendix N, Section 2 of the Economic Analysis (USEPA, 2023i) for additional detail.

[3] See Table 70 for a list of the nonquantifiable costs, and the potential direction of impact these costs would have on the estimated monetized total annualized costs in this table.

TABLE 40—NATIONAL ANNUALIZED COSTS, OPTION 1c

[PFOA and PFOS MCLs of 10.0 ppt; Million $2021]

	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected value	95th Percentile [1]	5th Percentile [1]	Expected value	95th percentile [1]
Annualized PWS Sampling Costs	$46.19	$52.84	$64.34	$48.33	$55.14	$66.82
Annualized PWS Implementation and Administration Costs	1.71	1.71	1.71	3.52	3.52	3.52
Annualized PWS Treatment Costs	214.02	233.87	257.12	336.54	367.40	404.42
Total Annualized PWS Costs [2 3]	264.49	288.43	317.66	390.39	426.06	468.83
Primacy Agency Rule Implementation and Administration Cost	4.28	4.76	5.65	4.91	5.40	6.28
Total Annualized Rule Costs [2 3]	269.11	293.19	323.45	395.35	431.46	474.75

Notes:

Detail may not add exactly to total due to independent rounding. Percentiles cannot be summed because cost components are not perfectly correlated.

[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 71. This range does not include the uncertainty described in Table 41.

[2] PFAS-contaminated wastes are not considered hazardous wastes at this time and therefore total costs reported in this table do not include costs associated with hazardous waste disposal of spent filtration materials. To address stakeholder concerns about potential costs for disposing PFAS-contaminated wastes as hazardous should they be regulated as such in the future, EPA conducted a sensitivity analysis with an assumption of hazardous waste disposal for illustrative purposes only. See Appendix N, Section 2 of the Economic Analysis (USEPA, 2023i) for additional detail.

[3] See Table 70 for a list of the nonquantifiable costs, and the potential direction of impact these costs would have on the estimated monetized total annualized costs in this table.

j. Data Limitations and Uncertainties in the Cost Analysis

Table 41 lists data limitations and characterizes the impact on the quantitative cost analysis. EPA notes that in most cases it is not possible to judge the extent to which a particular limitation or uncertainty could affect the cost analysis. EPA provides the potential direction of the impact on the cost estimates when possible but does not prioritize the entries with respect to the impact magnitude.

TABLE 41—LIMITATIONS THAT APPLY TO THE COST ANALYSIS FOR THE PROPOSED PFAS RULE

Uncertainty/assumption	Effect on quantitative analysis	Notes
WBS engineering cost model assumptions and component costs.	Uncertain	The WBS engineering cost models require many design and operating assumptions to estimate treatment process equipment and operating needs. Chapter 5 of the Economic Analysis (USEPA, 2023j) addressed the bed life assumption. The Technologies and Costs document (USEPA, 2023h) and individual WBS models in the rule docket provide additional information. The component-level costs approximate national average costs, which can over- or under-estimate costs at systems affected by the proposed rule.
Compliance forecast	Uncertain	The forecast probabilities are based on historical full-scale compliance actions. Site-specific water quality conditions, changes in technology, and changes in market conditions can result in future technology selections that differ from the compliance forecast.
TOC concentration	Uncertain	The randomly assigned values from the two national distributions are based on a limited dataset. Actual TOC concentrations at systems affected by the proposed rule can be higher or lower than the assigned values.
Insufficient UCMR 3 data for PFBS and PFNA and no UCMR 3 data for HFPO–DA were available to incorporate into the Bayesian hierarchical occurrence model.	Underestimate	The HI in the proposed option would regulate PFBS, PFNA, and HFPO–DA in addition to the modeled PFAS. In instances when concentrations of PFBS, PFNA, and/or HFPO–DA are high enough to cause a HI exceedance, the modeled costs may be underestimated. If these PFAS occur in isolation at levels that affect treatment decisions, or if they occur in sufficient concentration to result in an exceedance when the concentration of PFHxS alone would be below the HI, then costs would be underestimated. Note that EPA has conducted an analysis of the potential changes in system level treatment cost associated with the occurrence of PFBS, PFNA, and HFPO–DA using a model system approach which is discussed in detail in Chapter 5 and Appendix N of the Economic Analysis (USEPA, 2023j; USEPA, 2023i).
POU not included in compliance forecast.	Overestimate	If POU devices can be certified to meet concentrations that satisfy the proposed rule, then small systems may be able to reduce costs by using a POU compliance option instead of centralized treatment or source water changes.
Process wastes not classified as hazardous.	Underestimate	The national cost analysis reflects the assumption that PFAS-contaminated wastes are not considered hazardous wastes. As a general matter, EPA notes that such wastes are not currently regulated under Federal law as a hazardous waste. To address stakeholder concerns, including those raised during the SBREFA process, EPA conducted a sensitivity analysis with an assumption of hazardous waste disposal for illustrative purposes only. As part of this analysis, EPA generated a second full set of unit cost curves that are identical to the curves used for the national cost analysis with the exception that spent GAC and spent IX resin are considered hazardous. EPA acknowledges that if Federal authorities later determine that PFAS-contaminated wastes require handling as hazardous wastes, the residuals management costs in the WBS treatment cost models are expected to be higher. See Appendix N of the Economic Analysis (USEPA, 2023j; USEPA, 2023i) for a sensitivity analysis describing the potential increase in costs associated with hazardous waste disposal at 100% of systems treating for PFAS. The costs estimated in Appendix N are consistent with EPA OLEM's ''Interim Guidance on the Destruction and Disposal of Perfluoroalkyl and Polyfluoroalkyl Substances and Materials Containing Perfluoroalkyl and Polyfluoroalkyl Substances.'' [1]

Notes:
[1] EPA Office of Land and Emergency Management's Interim Guidance on the Destruction and Disposal of Perfluoroalkyl and Polyfluoroalkyl Substances and Materials Containing Perfluoroalkyl and Polyfluoroalkyl Substances can be found at *https://www.epa.gov/system/files/documents/2021-11/epa-hq-olem-2020-0527-0002_content.pdf.*

D. Method for Estimating Benefits

EPA's quantification of health benefits resulting from reduced PFAS exposure in drinking water was driven by PFAS occurrence estimates, pharmacokinetic (PK) model availability, information on exposure-response relationships, and available information to monetize avoided cases of illness. In the Economic Analysis, EPA either quantitatively assesses or qualitatively discusses health endpoints associated with exposure to PFAS. EPA assesses potential benefits quantitatively if evidence of exposure and health effects is likely, it is possible to link the outcome to risk of a health effect, and there is no overlap in effect with another quantified endpoint in the same outcome group. Particularly, the most consistent epidemiological associations with PFOA and PFOS include decreased immune system response, decreased birthweight, increased serum lipids, and increased liver enzymes (particularly ALT). The available evidence indicates effects across immune, developmental, cardiovascular, and hepatic organ systems at the same or approximately the same level of exposure.

Table 42 presents an overview of the categories of health benefits expected to result from the implementation of treatment that reduces PFAS levels in drinking water. Of the PFAS compounds included in the proposed rule, EPA quantifies some of the adverse health effects associated with PFOA and PFOS. EPA also quantifies one adverse health effect of PFNA in a sensitivity analysis only. These compounds have likely evidence linking exposure to a particular health endpoint and have reliable PK models connecting the compound to PFAS blood serum. PK models describe the distribution of chemicals in the body and pharmacodynamic relation between blood concentration and clinical effects. Benefits from avoided adverse health effects of HFPO–DA, PFHxS and PFBS are discussed qualitatively in this section.

As Table 42 demonstrates, only a subset of the avoided morbidity and mortality stemming from reduced PFAS levels in drinking water can be quantified and monetized. The monetized benefits evaluated in the Economic Analysis for the proposed rule include changes in human health risks associated with CVD and infant

birth weight from reduced exposure to PFOA and PFOS in drinking water and RCC from reduced exposure to PFOA. EPA also quantified benefits from reducing bladder cancer risk due to the co-removal of non-PFAS pollutants via the installation of drinking water treatment, discussed in greater detail in USEPA (2023j).

EPA was not able to quantify or monetize other benefits, including those related to other reported health effects including immune, liver, endocrine, metabolic, reproductive, musculoskeletal, other cancers. EPA discusses these benefits qualitatively in more detail below, as well as in Section 6.2 of USEPA (2023j).

TABLE 42—OVERVIEW OF HEALTH BENEFITS CATEGORIES CONSIDERED IN THE ANALYSIS OF CHANGES IN PFAS DRINKING WATER LEVELS

Health outcome		PFAS Compound[1 2 3]						Benefits analysis[4]	
Category	Endpoint	PFOA	PFOS	PFNA	PFHxS	PFBS	HFPO–DA	Discussed quantitatively	Discussed qualitatively
Lipids	Total cholesterol.	X	X	[e]X				X	
	High-density lipoprotein cholesterol (HDLC).	[5]X	[5]X					X	
	Low-density lipoprotein cholesterol (LDLC).	X	X	[5]X					X
CVD	Blood pressure		X					X	
Developmental	Birth weight	X	X	X	[5]X	•	[5]•	X	
	Small for gestational age (SGA), non-birth weight developmental.	X		[5]X	X	•			X
Endocrine	Thyroid hormone disruption.	•	•		•	•			X
Hepatic	ALT	X	X	[5]X	X		•		X
Immune	Antibody response (tetanus, diphtheria).	X	X	[5]X	X		•		X
Metabolic	Leptin	X							X
Renal	Organ weight					•	•		X
Musculoskeletal	Osteoarthritis, bone mineral density.	X		[5]X					X
Hematologic	Vitamin D levels, hemoglobin levels, albumin levels.						•		X
Cancer	RCC	X						X	
	Testicular	X							X
	Other						[5]•		

Notes:

[1] Fields marked with ''X'' indicate the PFAS compound for which there is evidence of an association with a given health outcome in epidemiological studies.

[2] Fields marked with ''•'' indicate the PFAS compound for which there is evidence of an association with a given health outcome only in toxicological studies.

[3] Note that only PFOA and PFOS effects were modeled in the assessment of benefits under the proposed rule. PFNA was modeled only in sensitivity analyses of birth weight benefits (See Economic Analysis Appendix K in USEPA (2023i)).

[4] Outcomes with likely evidence of an association between a PFAS compound and a health outcome are assessed quantitatively unless (1) there is an overlap within the same outcome group (*e.g.,* LDLC overlaps with total cholesterol, and SGA overlaps with low birth weight), or (2) it is not possible to link the outcome to the risk of the health effect (*e.g.,* evidence is inconclusive regarding the relationship between PFOS exposure and leptin levels and associated health outcomes). Such health outcomes are discussed qualitatively.

[5] Evidence of the relationship between the PFAS compound and the health outcome is not conclusive. Note that EPA sought comments from the EPA SAB on the CVD exposure-response approach (USEPA, 2023j). The SAB recommended that EPA evaluate how the inclusion of HDLC effects would influence results. EPA evaluated the inclusion of HDLC effects in a sensitivity analysis, described in Appendix K.

EPA developed PK models to evaluate blood serum PFAS levels in adults resulting from exposure to PFAS via drinking water. To date, EPA has developed PK models for PFOA and PFOS. EPA used baseline and regulatory alternative PFOA/PFOS drinking water concentrations as inputs to its PK model to estimate blood serum PFOA/PFOS concentrations for adult males and females. For further detail on the PK model and its application in EPA's benefits analysis, please see EPA's Proposed MCLG documents (USEPA, 2023b; USEPA, 2023c) and Section 6.3 of USEPA (2023j).

1. Quantified Developmental Effects

Research indicates that exposure to PFOA and PFOS is associated with developmental effects, including infant birth weight (Verner et al., 2015; USEPA, 2016e; USEPA, 2016f; USEPA, 2023b; USEPA, 2023c; Negri et al., 2017; ATSDR, 2021; Waterfield et al., 2020). The route through which the embryo and fetus are exposed prenatally to PFOA and PFOS is maternal blood serum via the placenta. Most studies of the association between maternal serum PFOA/PFOS and birth weight report negative relationships (Verner et al., 2015; Negri et al., 2017; Dzierlenga et al., 2020). EPA's PK model assumes that mothers were exposed to PFOA/PFOS from birth to the year in which pregnancy occurred.

EPA quantified and valued changes in birth weight-related risks associated

with reductions in exposure to PFOA and PFOS in drinking water. Entry point-specific time series of the differences between serum PFOA/PFOS concentrations under baseline and regulatory alternatives are inputs into this analysis. For each entry point, evaluation of the changes in birth weight impacts involves the following key steps:

1. Estimating the changes in birth weight based on modeled changes in serum PFOA/PFOS levels and exposure-response functions for the effect of serum PFOA/PFOS on birth weight;
2. Estimating the difference in infant mortality probability between the baseline and regulatory alternatives based on changes in birth weight under the regulatory alternatives and the association between birth weight and mortality;
3. Identifying the infant population affected by reduced exposure to PFOA/PFOS in drinking water under the regulatory alternatives;
4. Estimating the changes in the expected number of infant deaths under the regulatory alternatives based on the difference in infant mortality rates and the population of surviving infants affected by increases in birth weight due to reduced PFOA/PFOS exposure; and
5. Estimating the economic value of reducing infant mortality based on the Value of a Statistical Life and infant morbidity based on reductions in medical costs associated with changes in birth weight for the surviving infants based on the cost of illness.

EPA also considered the potential benefits from reduced exposure to PFNA that may be realized as a direct result of the proposed rule. The Agency explored the birth weight impacts of PFNA in a sensitivity analysis, using a unit PFNA reduction scenario (*i.e.,* 1.0 ppt change) and Lu and Bartell (2020) to estimate PFNA blood serum levels resulting from PFNA exposures in drinking water. To estimate blood serum PFNA based on its drinking water concentration, EPA used a first-order single-compartment model whose behavior was previously demonstrated to be consistent with PFOA PKs in humans (Bartell et al., 2010). In addition to the PFOA-birth weight and PFOS-birth weight effects analyzed in the Economic Analysis, EPA examined the effect of inclusion of PFNA-birth weight effects using estimates from two studies (Lenters et al., 2016; Valvi et al., 2017). EPA found that inclusion of a 1.0 ppt PFNA reduction could increase annualized birth weight benefits 5.4–7.7-fold, relative to the scenario that quantifies a 1.0 ppt reduction in PFOA and a 1.0 ppt reduction in PFOS only. The range of estimated PFNA-related increases in benefits is driven by the exposure-response, with smaller estimates produced using the slope factors from Lenters et al. (2016), followed by Valvi et al. (2017). EPA notes that the PFNA slope factor estimates are orders of magnitude larger than the slope factor estimates used to evaluate the impacts of PFOA/PFOS reductions. EPA also notes that the PFNA slope factor estimates are not precise, with 95% CIs covering wide ranges that include zero (*i.e.,* serum PFNA slope factor estimates are not statistically significant at 5% level). Caution should be exercised in making judgements about the potential magnitude of change in the national benefits estimates based on the results of these sensitivity analyses, although conclusions about the directionality of these effects can be inferred. EPA did not include PFNA effects in the national benefits estimates for the proposed rulemaking because of limitations associated with the UCMR 3 PFNA occurrence data and the slope factor estimates are less precise. For more information, see Appendix K of USEPA (2023j).

To estimate changes in birth weight resulting from reduced exposure to PFOA and PFOS under the regulatory alternatives, EPA relied on the estimated time series of changes in serum PFOA/PFOS concentrations specific to women of childbearing age and serum-birth weight exposure-response functions provided in recently published meta-analyses. For more detail on the evaluation of the studies used in these meta-analyses, please see *EPA's Proposed Maximum Contaminant Level Goal for PFOA and PFOS in Drinking Water* (USEPA, 2023b; USEPA, 2023c) and Section 6.4 of USEPA (2023j).

Changes in serum PFOA and PFOS concentrations are calculated for each PWS entry point during each year in the analysis period. EPA assumes that, given long half-lives of PFOS and PFOA, any one-time measurement during or near pregnancy is reflective of a critical window and not subject to considerable error. The mean change in birth weight per increment in long-term PFOA and PFOS exposure is calculated by multiplying each annual change in PFOA and PFOS serum concentration (ng/mL serum) by the PFOA and PFOS serum-birth weight exposure-response slope factors (g birth weight per ng/mL serum) provided in Table 43, respectively. The mean annual change in birth weight attributable to changes in both PFOA and PFOS exposure is the sum of the annual PFOA- and PFOS-birth weight change estimates. Additional detail on the derivation of the exposure-response functions can be found in Appendix D in USEPA (2023i). Appendix K in USEPA (2023i) presents an analysis of birth weight risk reduction considering slope factors specific to the first trimester.

TABLE 43—SERUM EXPOSURE-BIRTH WEIGHT RESPONSE ESTIMATES

Compound	g/ng/mL serum (95% CI)
PFOA [1]	−10.5 (−16.7, −4.4)
PFOS [2]	−3.0 (−4.9, −1.1)

Notes:
[1] The serum-birth weight slope factor for PFOA is based on the main random effects estimate from Negri et al. (2017); Steenland et al. (2018).
[2b] The serum-birth weight slope factor for PFOS is based on an EPA reanalysis of Dzierlenga et al. (2020).

EPA places a cap on estimated birth weight changes in excess of 200 g, assuming that such changes in birth weight are unreasonable even as a result of large changes in PFOA/PFOS serum concentrations. This cap is based on existing studies that found that changes to environmental exposures result in relatively modest birth weight changes (Windham and Fenster, 2008; Klein and Lynch, 2018; Kamai et al., 2019).

Low birth weight is linked to a number of health effects that may be a source of economic burden to society in the form of medical costs, infant mortality, parental and caregiver costs, labor market productivity loss, and education costs (Chaikind and Corman, 1991; Behrman and Butler, 2007; Behrman and Rosenzweig, 2004; Joyce et al., 2012; Kowlessar et al., 2013; Colaizy et al., 2016; Nicoletti et al., 2018; Klein and Lynch, 2018). Recent literature also linked low birth weight to educational attainment and required remediation to improve students' outcomes, childhood disability, and future earnings (Jelenkovic et al., 2018; Temple et al., 2010; Elder et al., 2020; Hines et al., 2020 Chatterji et al., 2014; Dobson et al., 2018).

EPA's analysis focuses on two categories of birth weight impacts that are amenable to monetization associated with incremental changes in birth weight: (1) medical costs associated with changes in infant birth weight and (2) the value of avoiding infant mortality at various birth weights. The birth weight literature related to other sources of economic burden to society (*e.g.,* parental and caregiver costs and productivity losses) is limited in geographic coverage, population size, and range of birth weights evaluated

and therefore cannot be used in the economic analysis of birth weight effects from exposure to PFOA/PFOS in drinking water (ICF, 2021).

Two studies showed statistically significant relationships between incremental changes in birth weight and infant mortality: Almond et al. (2005) and Ma and Finch (2010). Ma and Finch (2010) used 2001 National Center for Health Statistics (NCHS) linked birth/infant death data for singleton and multiple birth infants among subpopulations defined by sex and race/ethnicity to estimate a regression model assessing the associations between 14 key birth outcome measures, including birth weight, and infant mortality. They found notable variation in the relationship between birth weight and mortality across race/ethnicity subpopulations, with odds ratios for best-fit birth weight-mortality models ranging from 0.8–1 (per 100 g birth weight change). Almond et al. (2005) used 1989–1991 NCHS linked birth/infant death data for multiple birth infants to analyze relationships between birth weight and infant mortality within birth weight increment ranges. For their preferred model, they reported coefficients in deaths per 1,000 births per 1 g increase in birth weight that range from −0.420 to −0.002. However, the data used in these studies (Almond et al., 2005 and Ma, 2010) are outdated (1989–1991 and 2001, respectively). Given the significant decline in infant mortality over the last 30 years (ICF, 2020) and other maternal and birth characteristics that are likely to influence infant mortality (*e.g.,* average maternal age and rates of maternal smoking), the birth weight-mortality relationship estimates from Almond et al. (2005) and Ma and Fitch (2010) are likely to overestimate the benefits of birth weight changes.

Considering the discernible changes in infant mortality over the last 30 years, EPA developed a regression analysis to estimate the relationship between birth weight and infant mortality using the most recently available Period/Cohort Linked Birth-Infant Death Data Files published by NCHS from the 2017 period/2016 cohort and the 2018 period/2017 cohort (CDC, 2017, 2018). EPA selected variables of interest for the regression analysis, including maternal demographic and socioeconomic characteristics, maternal risk and risk mitigation factors (*e.g.,* number of prenatal care visits, smoker status), and infant birth characteristics. EPA included several variables used in Ma and Fitch (2010) (maternal age, maternal education, marital status, and others) as well as additional variables to augment the set of covariates included in the analyses. In addition, EPA developed separate models for different race/ethnicity categories (non-Hispanic Black, non-Hispanic White, and Hispanic) and interacted birth weight with categories of gestational age, similar to Ma and Finch (2010). Appendix E to USEPA (2023i) provides details on model development and regression results.

Table 44 presents the resulting odds ratios and marginal effects (in terms of deaths per 1,000 births for every 1 g increase in birth weight) estimated for changes in birth weight among different gestational age categories in the mortality regression models for non-Hispanic Black, non-Hispanic White, and Hispanic race/ethnicity subpopulations. Marginal effects for birth weight among gestational age categories vary across different race/ethnicity subpopulations. The marginal effects for birth weight among different gestational age categories are higher in the non-Hispanic Black model than in the non-Hispanic White and Hispanic models, particularly for extremely and very preterm infants, indicating that low birth weight increases the probability of mortality within the first year more so among non-Hispanic Black infants than among non-Hispanic White and Hispanic infants.

EPA relies on odds ratios estimated using the birth weight-mortality regression model to assess mortality outcomes of reduced exposures to PFOA/PFOS in drinking water under the regulatory alternatives. To obtain odds ratios specific to each race/ethnicity and 100 g birth weight increment considered in the birth weight benefits model,[6] EPA averaged the estimated odds ratios for 1 g increase in birth weight over the gestational age categories using the number of infants (both singleton and multiple birth) that fall into each gestational age category as weights. Separate gestational age category weights were computed for each 100 g birth weight increment and race/ethnicity subpopulation within the 2017 period/2016 cohort and 2018 period/2017 cohort Linked Birth-Infant Death Data Files. The weighted birth weight odds ratios are then used in conjunction with the estimated change in birth weight and baseline infant mortality rates to determine the probability of infant death under the regulatory alternatives, as described further in Section 6.4 of USEPA (2023j).

TABLE 44—RACE/ETHNICITY AND GESTATIONAL AGE-SPECIFIC BIRTH WEIGHT MARGINAL EFFECTS AND ODDS RATIOS FROM THE MORTALITY REGRESSION MODELS [1]

Race	Gestational age category [2]	Marginal effect per 1,000 births (95% CI)	Odds ratio (95% CI)
Non-Hispanic Black	Extremely Preterm	−0.20400 (−0.21910, −0.18890).	0.99817 (0.99802, 0.99832)
	Very Preterm	−0.04580 (−0.04820, −0.04340).	0.99816 (0.99804, 0.99827)
	Moderately Preterm	−0.01030 (−0.01080, −0.009850).	0.99852 (0.99846, 0.99857)
	Term	−0.00453 (−0.00472, −0.00434).	0.99856 (0.99851, 0.9986)
Non−Hispanic White	Extremely Preterm	−0.12160 (−0.13080, −0.11240).	0.99866 (0.99855, 0.99878)
	Very Preterm	−0.03290 (−0.03430, −0.03140).	0.9985 (0.99842, 0.99858)
	Moderately Preterm	−0.00677 (−0.00702, −0.00652).	0.99867 (0.99863, 0.99872)
	Term	−0.00228 (−0.00236, −0.00221).	0.99865 (0.99861, 0.99868)

[6] The birth weight risk reduction model evaluates changes in birth weight in response to PFOA/PFOS drinking water level reductions for infants who fall into 100 g birth weight increments (*e.g.,* birth weight 0–99 g, 100–199 g, 200–299 g. . . 8,000–8,099 g, 8,100–8,165 g).

TABLE 44—RACE/ETHNICITY AND GESTATIONAL AGE-SPECIFIC BIRTH WEIGHT MARGINAL EFFECTS AND ODDS RATIOS FROM THE MORTALITY REGRESSION MODELS [1]—Continued

Race	Gestational age category [2]	Marginal effect per 1,000 births (95% CI)	Odds ratio (95% CI)
Hispanic	Extremely Preterm	−0.15260 (−0.16770, −0.13750).	0.99835 (0.99817, 0.99853)
	Very Preterm	−0.03290 (−0.03510, −0.03070).	0.99846 (0.99835, 0.99858)
	Moderately Preterm	−0.00626 (−0.00659, −0.00592).	0.99856 (0.99849, 0.99862)
	Term	−0.00219 (−0.00229, −0.00208).	0.99849 (0.99844, 0.99855)

Notes:
[1] Data based on the 2016/17 and 2017/18 CDC Period Cohort Linked Birth-Infant Death Data Files obtained from NCHS/National Vital Statistics System (NVSS). Marginal effects and odds ratios are estimated using a regression model that also includes covariates representative of infant birth characteristics in addition to birth weight, maternal demographic characteristics, and maternal risk factors. All effects were statistically significant at the 5% level. Additional details are included in Appendix E to the Economic Analysis.
[2] Gestational age categories defined as extremely preterm (<=28 weeks), very preterm (>28 weeks and <=32 weeks), moderately preterm (>32 weeks and <=37 weeks), and term (>37 weeks).

EPA weighted the race/ethnicity-specific odds ratios in Table 44 by the proportions of the infant populations who fell into each gestational age within a 100 g birth weight increment, based on the 2016/17 and 2017/18 period cohort data, to obtain a weighted odds ratio estimate for each modeled race/ethnicity subpopulation and 100 g birth weight increment.

Based on reduced serum PFOA/PFOS exposures under the regulatory alternatives and the estimated relationship between birth weight and infant mortality, EPA estimates the subsequent change in birth weight for those infants affected by decreases in PFOA/PFOS and changes in the number of infant deaths. EPA evaluated these changes at each PWS entry point affected by the regulatory alternatives and the calculations are performed for each race/ethnicity group, 100 g birth weight category, and year of the analysis. Additional detail on the calculations EPA used to estimate changes in birth weight, the affected population size, and infant deaths avoided, and the number of surviving infants is provided in Chapter 6 of USEPA (2023j).

EPA used the Value of a Statistical Life to estimate the benefits of reducing infant mortality and the cost of illness to estimate the economic value of increasing birth weight in the population of surviving infants born to mothers exposed to PFOA and PFOS in drinking water. EPA's approach to monetizing benefits associated with incremental increases in birth weight resulting from reductions in drinking water PFOA/PFOS levels relies on avoided medical costs associated with various ranges of birth weight. Although the economic burden of treating infants at various birth weights also includes non-medical costs, very few studies to date have quantified such costs (Klein and Lynch, 2018; ICF, 2021). EPA selected the medical cost function from Klein and Lynch (2018) to monetize benefits associated with the estimated changes in infant birth weight resulting from reduced maternal exposure to PFOA/PFOS.[7]

Using the incremental cost changes from Klein and Lynch (2018), EPA calculates the change in medical costs resulting from changes in birth weight among infants in the affected population who survived the first year following birth, provided in Table 45.

TABLE 45—SIMULATED COST CHANGES FOR BIRTH WEIGHT INCREASES

[$2021]

Birth weight [1] [2]	Simulated cost changes for birth weight increases, dollars per gram ($2021) [3]		
	+0.04 lb (+18 g)	+0.11 lb (+50 g)	+0.22 lb (+100 g)
2 lb (907 g)	−$126.53	−$112.87	−$109.39
2.5 lb (1,134 g)	−$94.88	−$84.64	−$82.03
3 lb (1,361 g)	−$71.15	−$63.47	−$61.51
3.3 lb (1,497 g)	−$59.86	−$53.40	−$51.75
4 lb (1,814 g)	−$40.00	−$35.69	−$34.59
4.5 lb (2,041 g)	−$30.00	−$26.76	−$25.93
5 lb (2,268 g)	−$22.49	−$20.07	−$19.45
5.5 lb (2,495 g)	−$0.93	−$0.84	−$0.84
6 lb (2,722 g)	−$0.91	−$0.83	−$0.83
7 lb (3,175 g)	−$0.88	−$0.80	−$0.80
8 lb (3,629 g)	−$0.85	−$0.77	−$0.77
9 lb (4,082 g)	$3.15	$2.87	$2.89
10 lb (4,536 g)	$3.54	$3.23	$3.26

Notes:

[7] The Klein and Lynch (2018) report was externally peer reviewed by three experts with qualifications in economics and public health sciences. EPA's charge questions to the peer reviewers sought input on the methodology for developing medical cost estimates associated with changes in birth weight. The Agency's charge questions and peer reviewer responses are available in the docket.

[1] Values for birth weight have been converted from lb to g.
[2] Note that simulated medical costs increase, rather than decrease, in response to increased birth weight changes among high birth weight infants (those greater than 8 lb). Among high birth weight infants, there is a higher risk of birth trauma, metabolic issues, and other health problems (Klein and Lynch, 2018).
[3] Values scaled from $2010 to $2021 using the medical care CPI (Bureau of Labor Statistics, 2021).

Tables 46 to 49 provide the health effects avoided and valuation associated with birth weight impacts. EPA estimated that, over the evaluation period, the proposed rule will result in an average annual benefit from avoided reductions in birth weight from $139 million ($2021, 7% discount rate) to $178 million ($2021, 3% discount rate).

TABLE 46—NATIONAL BIRTH WEIGHT BENEFITS, PROPOSED OPTION

[PFOA and PFOS MCLs of 4.0 ppt and HI of 1.0]
[Million $2021]

Benefits category	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected benefits	95th Percentile [1]	5th Percentile [1]	Expected benefits	95th Percentile [1]
Increase in Birth Weight (millions of grams)	114.2	209.3	329.7	114.2	209.3	329.7
Number of Birth Weight-Related Deaths Avoided	676.8	1,232.7	1,941.0	676.8	1,232.7	1,941.0
Total Annualized Birth Weight Benefits (Million $2021) [2]	$97.36	$177.66	$279.49	$74.62	$139.01	$219.43

Notes:
Detail may not add exactly to total due to independent rounding.
[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 72. This range does not include the uncertainty described in Table 60.
[2] See Table 70 for a list of the nonquantifiable benefits, and the potential direction of impact these benefits would have on the estimated monetized total annualized benefits in this table.

TABLE 47—NATIONAL BIRTH WEIGHT BENEFITS, OPTION 1A

[PFOA and PFOS MCLs of 4.0 ppt]
[Million $2021]

Benefits category	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected benefits	95th Percentile [1]	5th Percentile [1]	Expected benefits	95th Percentile [1]
Increase in Birth Weight (millions of grams)	111.7	206.3	326.9	111.7	206.3	326.9
Number of Birth Weight-Related Deaths Avoided	665.4	1,214.7	1,915.4	665.4	1,214.7	1,915.4
Total Annualized Birth Weight Benefits (Million $2021) [2]	$95.73	$175.05	$276.44	$74.66	$136.97	$217.02

Notes:
Detail may not add exactly to total due to independent rounding.
[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 72. This range does not include the uncertainty described in Table 60.
[2] See Table 70 for a list of the nonquantifiable benefits, and the potential direction of impact these benefits would have on the estimated monetized total annualized benefits in this table.

TABLE 48—NATIONAL BIRTH WEIGHT BENEFITS, OPTION 1B

[PFOA and PFOS MCLs of 5.0 ppt]
[Million $2021]

Benefits category	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected benefits	95th Percentile [1]	5th Percentile [1]	Expected benefits	95th Percentile [1]
Increase in Birth Weight (millions of grams)	97.6	181.9	292.1	97.6	181.9	292.1
Number of Birth Weight-Related Deaths Avoided	578.9	1,069.5	1,707.3	578.9	1,069.5	1,707.3
Total Annualized Birth Weight Benefits (Million $2021) [2]	$83.27	$154.13	$246.43	$64.94	$120.59	$193.47

Notes:
Detail may not add exactly to total due to independent rounding.
[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 72. This range does not include the uncertainty described in Table 60.
[2] See Table 70 for a list of the nonquantifiable benefits, and the potential direction of impact these benefits would have on the estimated monetized total annualized benefits in this table.

TABLE 49—NATIONAL BIRTH WEIGHT BENEFITS, OPTION 1C

[PFOA and PFOS MCLs of 10.0 ppt]

[Million $2021]

Benefits category	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected benefits	95th Percentile [1]	5th Percentile [1]	Expected benefits	95th Percentile [1]
Increase in Birth Weight (millions of grams)	51.0	109.2	195.3	51.0	109.2	195.3
Number of Birth Weight-Related Deaths Avoided	299.5	643.3	1,140.5	299.5	643.3	1,140.5
Total Annualized Birth Weight Benefits (Million $2021) [2]	$43.22	$92.70	$164.19	$34.18	$72.51	$125.80

Notes:

Detail may not add exactly to total due to independent rounding.

[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 72. This range does not include the uncertainty described in Table 60.

[2] See Table 70 for a list of the nonquantifiable benefits, and the potential direction of impact these benefits would have on the estimated monetized total annualized benefits in this table.

2. Quantified Cardiovascular Effects

CVD is one of the leading causes of premature mortality in the United States (D'Agostino et al., 2008; Goff et al., 2014; Lloyd-Jones et al., 2017). As discussed in EPA's Proposed Maximum Contaminant Level Goals for PFOA and PFOS in Drinking Water, exposure to PFOA and PFOS through drinking water contributes to increased serum PFOA and PFOS concentrations and potentially elevated levels of total cholesterol and elevated levels of systolic blood pressure (USEPA, 2023b; USEPA, 2023c). Changes in total cholesterol and blood pressure are associated with changes in incidence of CVD events such as myocardial infarction (*i.e.,* heart attack), ischemic stroke, and cardiovascular mortality occurring in populations without prior CVD event experience (D'Agostino et al., 2008; Goff et al., 2014; Lloyd-Jones et al., 2017).

EPA recognizes that the epidemiologic literature that provides strong support for an effect of PFOA and PFOS on cholesterol and blood pressure does not provide direct support for an effect of PFOA and PFOS on the risk of CVD. Therefore, EPA uses the approach outlined below to link changes in CVD risk biomarkers (*i.e.,* cholesterol and blood pressure) to changes in CVD risk.

For each entry point, evaluation of the changes in CVD risk involves the following key steps:

1. Estimation of annual changes in total cholesterol and blood pressure levels using exposure-response functions for the potential effects of serum PFOA/PFOS on these biomarkers;

2. Estimation of the annual incidence of fatal and non-fatal first hard CVD events, defined as fatal and non-fatal myocardial infarction, fatal and non-fatal ischemic stroke or other coronary heart disease death occurring in populations without prior CVD event experience (D'Agostino et al., 2008; Goff et al., 2014; Lloyd-Jones et al., 2017), and post-acute CVD mortality corresponding to baseline and regulatory alternative total cholesterol and blood pressure levels in all populations alive during or born after the start of the evaluation period; and

3. Estimation of the economic value of reducing CVD mortality and morbidity from baseline to regulatory alternative levels, using the Value of a Statistical Life and cost of illness measures, respectively.

Given the breadth of evidence linking PFOA and PFOS exposure to effects on total cholesterol and blood pressure in general adult populations, EPA quantified public health impacts of changes in these well-established CVD risk biomarkers (D'Agostino et al., 2008; Goff et al., 2014; Lloyd-Jones et al., 2017) by estimating changes in incidence of several CVD events. Specifically, EPA assumed that PFOA/PFOS-related changes in total cholesterol and blood pressure had the same effect on the CVD risk as the changes unrelated to chemical exposure and used the Pooled Cohort Atherosclerotic Cardiovascular Disease (ASCVD) model (Goff et al., 2014) to evaluate their impacts on the incidence of myocardial infarction, ischemic stroke, and cardiovascular mortality occurring in populations without prior CVD event experience.

The ASCVD model includes total cholesterol as a predictor of first hard CVD events. EPA did not identify any readily available relationships for PFOA or PFOS and total cholesterol that were specifically relevant to the age group of interest (40–89 years, the years for which the ASCVD model estimates the probability of a first hard CVD event). Therefore, the Agency developed a meta-analysis of studies reporting associations between serum PFOA or PFOS and total cholesterol in general populations (*e.g.,* populations that are not a subset of workers or pregnant women). Statistical analyses that combine the results of multiple studies, such as meta-analyses, are widely applied to investigate the associations between contaminant levels and associated health effects. Such analyses are suitable for economic assessments because they can improve precision and statistical power (Engels et al., 2000; Deeks, 2002; Rücker et al., 2009).

EPA identified 14 studies from which to derive slope estimates for PFOA and PFOS associations with serum total cholesterol levels. Appendix A to USEPA (2023i) provides further detail on the studies selection criteria, meta-data development, meta-analysis results, and discussion of the uncertainty and limitations inherent in EPA's exposure-response analysis.

EPA developed exposure-response relationships between serum PFOA/PFOS and total cholesterol for use in the CVD analysis using the meta-analyses restricted to studies of adults in the general population reporting similar models. When using studies reporting linear associations between total cholesterol and serum PFOA or PFOS, EPA estimated a positive increase in total cholesterol of 1.57 (95% CI: 0.02, 3.13) mg/dL per ng/mL serum PFOA (p-value=0.048), and of 0.08 (95% CI: −0.01, 0.16) mg/dL per ng/mL serum PFOS (p-value=0.064). Based on the systematic review conducted by EPA to develop EPA's Proposed Maximum Contaminant Level Goals for PFOA and PFOS in Drinking Water, the available evidence supports a positive association between PFOS and total cholesterol in the general population. For more information on the systematic review and results, see USEPA, 2023b and USEPA, 2023c.

PFOS exposure has been linked to other cardiovascular outcomes, such as systolic blood pressure and hypertension (Liao et al., 2020; USEPA,

2023c). Because systolic blood pressure is another predictor used by the ASCVD model, EPA included the estimated changes in blood pressure from reduced exposure to PFOS in the CVD analysis. EPA selected the slope from the Liao et al. (2020) study—a high confidence study conducted based on U.S. general population data from NHANES cycles 2003–2012. The evidence on the associations between PFOA and blood pressure is not as consistent as for PFOS. Therefore, EPA is not including effect estimates for the serum PFOA-blood pressure associations in the CVD analysis.

EPA relies on the life table-based approach to estimate CVD risk reductions because (1) changes in serum PFOA/PFOS in response to changes in drinking water PFOA/PFOS occur over multiple years, (2) CVD risk, relying on the ASCVD model, can be modeled only for those older than 40 years without prior CVD history, and (3) individuals who have experienced non-fatal CVD events have elevated mortality implications immediately and within at least five years of the first occurrence. Recurrent life table calculations are used to estimate a PWS entry point-specific annual time series of CVD event incidence for a population cohort characterized by sex, race/ethnicity, birth year, age at the start of the PFOA/PFOS evaluation period (*i.e.,* 2023), and age- and sex-specific time series of changes in total cholesterol and blood pressure levels obtained by combining serum PFOA/PFOS concentration time series with exposure-response information. Baseline and regulatory alternatives are evaluated separately, with regulatory alternative total cholesterol and blood pressure levels estimated using baseline information on these biomarkers from external statistical data sources and modeled changes in total cholesterol and blood pressure due to conditions under the regulatory alternatives.

EPA estimated the incidence of first hard CVD events based on total cholesterol serum and blood pressure levels using the ASCVD model (Goff et al., 2014), which predicts the 10-year probability of a hard CVD event to be experienced by a person without a prior CVD history. EPA adjusted the modeled population cohort to exclude individuals with pre-existing conditions, as the ASCVD risk model does not apply to these individuals. For blood pressure effects estimation, EPA further restricts the modeled population to those not using antihypertensive medications for consistency with the exposure-response relationship. Modeled first hard CVD events include fatal and non-fatal myocardial infarction, fatal and non-fatal ischemic stroke, and other coronary heart disease mortality. EPA also has estimated the incidence of post-acute CVD mortality among survivors of the first myocardial infarction or ischemic stroke within 6 years of the initial event.

The estimated CVD risk reduction resulting from reducing serum PFOA and serum PFOS concentrations is the difference in annual incidence of CVD events (*i.e.,* mortality and morbidity associated with first-time CVD events and post-acute CVD mortality) under the baseline and regulatory alternatives. Appendix G to USEPA (2023i) provides detailed information on all CVD model components, computations, and sources of data used in modeling.

EPA uses the Value of a Statistical Life to estimate the benefits of reducing mortality associated with hard CVD events in the population exposed to PFOA and PFOS in drinking water. EPA relies on cost of illness-based valuation that represents the medical costs of treating or mitigating non-fatal first hard CVD events (myocardial infarction, ischemic stroke) during the three years following an event among those without prior CVD history, adjusted for post-acute mortality.

The annual medical expenditure estimates for myocardial infarction and ischemic stroke are based on O'Sullivan et al. (2011). The estimated expenditures do not include long-term institutional and home health care. For non-fatal myocardial infarction, O'Sullivan et al. (2011) estimated medical expenditures are $51,173 ($2021) for the initial event and then $31,871, $14,065, $12,569 annually within 1, 2, and 3 years after the initial event, respectively. For non-fatal ischemic stroke, O'Sullivan et al. (2011) estimated medical expenditures are $15,861 ($2021) for the initial event and then $11,521, $748, $1,796 annually within 1, 2, and 3 years after the initial event, respectively. Annual estimates within 1, 2, and 3 years after the initial event include the incidence of secondary CVD events among survivors of first myocardial infarction and ischemic stroke events.

To estimate the present discounted value of medical expenditures within 3 years of the initial non-fatal myocardial infarction, EPA combined O'Sullivan et al. (2011) myocardial infarction-specific estimates with post-acute survival probabilities based on Thom et al. (2001) (for myocardial infarction survivors aged 40–64) and Li et al. (2019) (for myocardial infarction survivors aged 65+). To estimate the present discounted value of medical expenditures within 3 years of the initial non-fatal ischemic stroke, EPA combined O'Sullivan et al. (2011) ischemic stroke-specific estimates with post-acute survival probabilities based on Thom et al. (2001) (for ischemic stroke survivors aged 40–64, assuming post-acute myocardial infarction survival probabilities reasonably approximate post-acute ischemic stroke survival probabilities) and Li et al. (2019) (for ischemic stroke survivors aged 65+). EPA did not identify post-acute ischemic stroke mortality information in this age group, but instead applied post-acute myocardial infarction mortality estimates for ischemic stroke valuation. Table 50 presents the resulting myocardial infarction and ischemic stroke unit values.

TABLE 50—COST OF ILLNESS-BASED VALUE OF NON-FATAL FIRST CVD EVENT USED IN MODELING

Type of first non-fatal hard CVD event	Age group	Present discounted value of 3-year medical expenditures ($2021) [1] [2], adjusted for post-acute mortality [3]	
		3% discount rate	7% discount rate
Myocardial Infarction (MI)	40–65 years	$105,419	$104,155
	66+ years	92,658	91,881
Ischemic Stroke (IS)	40–65 years	29,154	29,017
	66+ years	26,844	26,762

Notes:
[1] Estimates of annual medical expenditures are from O'Sullivan et al. (2011);

[2] Original values from O'Sullivan et al. (2011) were inflated to $2021 using the medical care CPI (Bureau of Labor Statistics, 2021);
[3] Post-acute myocardial infarction mortality data for those aged 40–64 years is from Thom et al. (2001); probabilities to survive 1 year, 2 years, and 3 years after the initial event are 0.93, 0.92, and 0.90, respectively. EPA applies these mortality values to derive the ischemic stroke value in this age group. Post-acute myocardial infarction mortality data and post-acute IS mortality data for persons aged 65 and older are from Li et al. (2019). For myocardial infarction, probabilities to survive 1 year, 2 years, and 3 years after the initial event are 0.68, 0.57, and 0.49, respectively. For ischemic stroke, probabilities to survive 1 year, 2 years, and 3 years after the initial event are 0.67, 0.57, and 0.48, respectively.

Table 51 to Table 54 provide the health effects avoided and valuation associated with CVD. EPA estimated that, over the evaluation period, the proposed option will result in an average annual benefit from avoided CVD cases and deaths from $421 million ($2021, 7% discount rate) to $533 million ($2021, 3% discount rate).

TABLE 51—NATIONAL CVD BENEFITS, PROPOSED OPTION

[PFOA and PFOS MCLs of 4.0 ppt and HI of 1.0]
[Million $2021]

Benefits category	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected benefits	95th Percentile [1]	5th Percentile [1]	Expected benefits	95th Percentile [1]
Number of Non-Fatal MI Cases Avoided	1,251.5	6,081.0	11,738.7	1,251.5	6,081.0	11,738.7
Number of Non-Fatal IS Cases Avoided	1,814.0	8,870.8	17,388.5	1,814.0	8,870.8	17,388.5
Number of CVD Deaths Avoided	753.6	3,584.6	7,030.9	753.6	3,584.6	7,030.9
Total Annualized CVD Benefits (Million $2021) [2]	$111.78	$533.48	$1,051.00	$85.94	$421.10	$822.88

Notes:
Detail may not add exactly to total due to independent rounding.
[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 72. This range does not include the uncertainty described in Table 60.
[2] See Table 70 for a list of the nonquantifiable benefits, and the potential direction of impact these benefits would have on the estimated monetized total annualized benefits in this table.

TABLE 52—NATIONAL CVD BENEFITS, OPTION 1a

[PFOA and PFOS MCLs of 4.0 ppt]
[Million $2021]

Benefits category	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected benefits	95th Percentile [1]	5th Percentile [1]	Expected benefits	95th Percentile [1]
Number of Non-Fatal MI Cases Avoided	1,248.7	5,983.8	11,614.9	1,248.7	5,983.8	11,614.9
Number of Non-Fatal IS Cases Avoided	1,786.4	8,729.6	17,149.5	1,786.4	8,729.6	17,149.5
Number of CVD Deaths Avoided	744.6	3,527.8	6,951.5	744.6	3,527.8	6,951.5
Total Annualized CVD Benefits (Million $2021) [2]	$110.45	$525.05	$1,035.36	$86.32	$414.45	$817.79

Notes:
Detail may not add exactly to total due to independent rounding.
[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 72. This range does not include the uncertainty described in Table 60.
[2] See Table 70 for a list of the nonquantifiable benefits, and the potential direction of impact these benefits would have on the estimated monetized total annualized benefits in this table.

TABLE 53—NATIONAL CVD BENEFITS, OPTION 1b

[PFOA and PFOS MCLs of 5.0 ppt]
[Million $2021]

Benefits category	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected benefits	95th Percentile [1]	5th Percentile [1]	Expected benefits	95th Percentile [1]
Number of Non-Fatal MI Cases Avoided	1,105.9	5,220.7	10,215.4	1,105.9	5,220.7	10,215.4
Number of Non-Fatal IS Cases Avoided	1,609.3	7,624.2	15,029.5	1,609.3	7,624.2	15,029.5
Number of CVD Deaths Avoided	645.9	3,084.6	6,102.2	645.9	3,084.6	6,102.2
Total Annualized CVD Benefits (Million $2021) [2]	$99.73	$459.09	$908.82	$72.72	$362.42	$717.85

Notes:
Detail may not add exactly to total due to independent rounding.
[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 72. This range does not include the uncertainty described in Table 60.
[2] See Table 70 for a list of the nonquantifiable benefits, and the potential direction of impact these benefits would have on the estimated monetized total annualized benefits in this table.

TABLE 54—NATIONAL CVD BENEFITS, OPTION 1c

[PFOA and PFOS MCLs of 10.0 ppt]

[Million $2021]

Benefits category	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected benefits	95th Percentile [1]	5th Percentile [1]	Expected benefits	95th Percentile [1]
Number of Non-Fatal MI Cases Avoided	619.0	3,032.5	6,320.7	619.0	3,032.5	6,320.7
Number of Non-Fatal IS Cases Avoided	878.1	4,445.9	9,439.4	878.1	4,445.9	9,439.4
Number of CVD Deaths Avoided	343.8	1,806.7	3,835.8	343.8	1,806.7	3,835.8
Total Annualized CVD Benefits (Million $2021) [2]	$51.00	$268.78	$571.32	$41.85	$212.18	$450.51

Notes:

Detail may not add exactly to total due to independent rounding.

[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 72. This range does not include the uncertainty described in Table 60.

[2] See Table 70 for a list of the nonquantifiable benefits, and the potential direction of impact these benefits would have on the estimated monetized total annualized benefits in this table.

3. Quantified Kidney Cancer Effects

Data on the association between PFOA exposure and kidney cancer (*i.e.,* RCC) are limited but suggest a positive association between exposure and increased risk of RCC. Epidemiology studies indicated that exposure to PFOA was associated with an increased risk of RCC (California Environmental Protection Agency, 2021; USEPA, 2016e; ATSDR, 2021; USEPA, 2023b). In the PFOA HESD (USEPA, 2016e), EPA characterized the evidence for PFOA effects on RCC as ''probable'' based on two occupational population studies (Raleigh et al., 2014; Steenland and Woskie, 2012) and two high-exposure community studies (Vieira et al., 2013; Barry et al., 2013). A recent study of the relationship between PFOA and RCC in U.S. general populations found strong evidence that exposure to PFOA causes RCC in humans (Shearer et al., 2021). As such, EPA selected RCC as a key outcome when assessing the health impacts of reduced PFOA exposures.

EPA quantified and valued the changes in RCC risk associated with reductions in serum PFOA levels that are in turn associated with reductions in drinking water PFOA concentrations under the regulatory alternatives. PWS entry point-specific time series of the differences between serum PFOA concentrations under baseline and regulatory alternatives are inputs into this analysis. For each PWS entry point, evaluation of the changes in RCC impacts involves the following key steps:

1. Estimating the changes in RCC risk based on modeled changes in serum PFOA levels and the exposure-response function for the effect of serum PFOA on RCC;

2. Estimating the annual incidence of RCC cases and excess mortality among those with RCC in all populations corresponding to baseline and regulatory alternative RCC risk levels, as well as estimating the regulatory alternative-specific reduction in cases relative to the baseline, and

3. Estimating the economic value of reducing RCC mortality from baseline to regulatory alternative levels, using the Value of a Statistical Life and cost of illness measures, respectively.

To identify an exposure-response function, EPA reviewed three studies highlighted in the HESD for PFOA (USEPA, 2016e) and a recent study discussed in both the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA) PFOA Public Health Goals report (California Environmental Protection Agency, 2021) and EPA's Proposed Maximum Contaminant Level Goal (MCLG) for PFOA (USEPA, 2023b). Steenland et al. (2015) observed an increase in kidney cancer deaths among workers with high exposures to PFOA. Vieira et al. (2013) found that kidney cancer was positively associated with high and very high PFOA exposures. Barry et al. (2013) found a slight trend in cumulative PFOA serum exposures and kidney cancer among the C8 Health Project population. In a large case-control general population study of the relationship between PFOA and kidney cancer in 10 locations across the U.S., Shearer et al. (2021) found strong evidence that exposure to PFOA causes RCC, the most common form of kidney cancer, in humans.

To evaluate changes between baseline and regulatory alternative RCC risk resulting from reduced exposure to PFOA, EPA relied on the estimated time series of changes in serum PFOA concentrations (Section 6.3) and the serum-RCC exposure-response function provided by Shearer et al. (2021): 0.00178 (ng/mL)-1. The analysis from Shearer et al. (2021) was designed as a case-control study with population controls based on 10 sites within the U.S. population. Shearer et al. (2021) included controls for age, sex, race, ethnicity, study center, year of blood draw, smoking, and hypertension. Results showed a strong and statistically significant association between PFOA and RCC. EPA selected the exposure-response relationship from Shearer et al. (2021) because it included exposure levels typical in the general population and was found to have a low risk of bias based on EPA's *Proposed Maximum Contaminant Level Goal for PFOA* (USEPA, 2023b).

The linear slope factor based on Shearer et al. (2021) enables estimation of the changes in lifetime RCC risk associated with reduced lifetime serum PFOA levels. Because baseline RCC incidence statistics are not readily available from the NCI public use data, EPA used kidney cancer statistics in conjunction with an assumption that RCC comprises 90% of all kidney cancer cases to estimate baseline lifetime probability of RCC (USEPA, 2023b). EPA estimated the baseline lifetime RCC incidence for males at 1.89% and the baseline lifetime RCC incidence for females at 1.05%. Details of these calculations are provided in Appendix H to USEPA (2023i).

Similar to its approach for estimating of CVD risk reductions, EPA relies on the life table approach to estimate RCC risk reductions. The outputs of the life table calculations are the PWS entry point-specific estimates of the annual change in the number of RCC cases and the annual change in excess RCC population mortality. For more detail on EPA's application of the life table to cancer benefits analyses, please see Appendix H to USEPA (2023j).

Although the change in PFOA exposure likely affects the risk of developing RCC beyond the end of the

analysis period (the majority of RCC cases manifest during the latter half of the average individual lifespan; see Appendix H to USEPA (2023j), EPA does not capture effects after the end of the period of analysis, 2104. Individuals alive after the end of the period of analysis likely benefit from lower lifetime exposure to PFOA. Lifetime health risk model data sources include EPA SDWIS, age-, sex-, and race/ethnicity-specific population estimates from the U.S. Census Bureau (2020), the Surveillance, Epidemiology, and End Results (SEER) program database (Surveillance Research Program—National Cancer Institute, 202a; 2020b), and the Centers for Disease Control and Prevention (CDC) NCHS. Appendix H to USEPA (2023i) provides additional detail on the data sources and information used in this analysis as well as baseline kidney cancer statistics. Appendix B to USEPA (2023i) describes estimation of the affected population.

EPA uses the Value of a Statistical Life to estimate the benefits of reducing mortality associated with RCC in the population exposed to PFOA in drinking water. EPA uses the cost of illness-based valuation to estimate the benefits of reducing morbidity associated with RCC.

EPA used the medical cost information from a recent RCC cost-effectiveness study by Ambavane et al. (2020) to develop cost of illness estimates for RCC morbidity. Ambavane et al. (2020) used a discrete event simulation model to estimate the lifetime treatment costs of several RCC treatment sequences, which included first and second line treatment medication costs, medication administration costs, adverse effect management costs, and disease management costs on- and off-treatment. To this end, the authors combined RCC cohort data from CheckMate 214 clinical trial and recent US-based healthcare cost information assembled from multiple sources (see supplementary information from Ambavane et al. (2020)). Ambavane et al. (2020) found that RCC treatment sequences using a combination of two immunotherapy drugs as the first line medications were the most cost-effective.

Table 55 summarizes RCC morbidity cost of illness estimates derived by EPA using Ambavane et al. (2020)-reported disease management costs on- and off-treatment along with medication, administration, and adverse effect management costs for the first line treatment that initiated the most cost-effective treatment sequences as identified by Ambavane et al. (2020), *i.e.,* the nivolumab/ipilimumab drug combination. This is a forward-looking valuation approach in that it assumes that the clinical practice would follow the treatment recommendations in Ambavane et al. (2020) and other recent studies cited therein. EPA notes that the second line treatment costs are not reflected in EPA's cost of illness estimates, because Ambavane et al. (2020) did not report information on the expected durations of the treatment-free interval (between the first line treatment discontinuation and the second line treatment initiation) and the second line treatment phase, conditional on survival beyond discontinuation of the second line treatment. As such, EPA valued RCC morbidity at $251,007 ($2021) during year 1 of the diagnosis, $190,969 ($2021) during year 2 of the diagnosis, and $1,596 ($2021) starting from year 3 of the diagnosis. Additionally, EPA assumed that for individuals with RCC who die during the specific year, the entire year-specific cancer treatment regimen is applied prior to the death event. This may overestimate benefits if a person does not survive the entire year.

TABLE 55—RCC MORBIDITY VALUATION

Time interval	First line medication ($2018) [1]	First line administration ($2018) [1]	First line adverse effect management ($2018) [1 3]	Disease management ($2018) [1]	Total ($2018)	Total ($2021) [4]
Monthly cost, month 1–3 from diagnosis [1 5]	32,485	516	78	73	33,152	35,927
Monthly cost, month 4–24 from diagnosis [2 6]	13,887	647	78	73	14,685	15,914
Monthly cost, month 25+ from diagnosis [7]	.....	.....	.....	123	123	133
Annual cost, year 1 from diagnosis	222,438	7,371	934	878	231,621	251,007
Annual cost, year 2 from diagnosis	166,644	7,764	934	878	176,220	190,969
Annual cost, year 3+ from diagnosis	.....	.....	.....	1,473	1,473	1,596

Notes:
[1] Ambavane et al. (2020) Table 1.
[2] Ambavane et al. (2020) p. 41, a maximum treatment duration assumption of 2 years.
[3] The adverse effect management costs of $1,868 in Ambavane et al. (2020) Table 1 were reported for the treatment duration. EPA used the treatment duration of 24 months (*i.e.,* 2 years) to derive monthly costs of $77.83.
[4] To adjust for inflation, EPA used U.S. BLS CPI for All Urban Consumers: Medical Care Services in U.S. (City Average).
[5] First line treatment induction.
[6] First line treatment maintenance.
[7] Treatment-free interval.

Tables 56 to 59 provide the health effects avoided and valuation associated with RCC. EPA estimated that, over the evaluation period, the proposed rule will result in an average annual benefit from avoided RCC cases and deaths from $217 million ($2021, 7% discount rate) to $301 million ($2021, 3% discount rate).

TABLE 56—NATIONAL RCC BENEFITS, PROPOSED OPTION

[PFOA and PFOS MCLs of 4.0 ppt and HI of 1.0]

[Million $2021]

Benefits category	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected benefits	95th Percentile [1]	5th Percentile [1]	Expected benefits	95th Percentile [1]
Number of Non-Fatal RCC Cases Avoided	1,313.6	6,872.0	17,387.8	1,313.6	6,872.0	17,387.8
Number of RCC-Related Deaths Avoided	308.7	1,927.8	5,049.3	308.7	1,927.8	5,049.3
Total Annualized RCC Benefits (Million $2021) [2]	$54.23	$300.56	$758.03	$45.36	$217.37	$515.89

Notes:

Detail may not add exactly to total due to independent rounding.

[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 72. This range does not include the uncertainty described in Table 60.

[2] See Table 70 for a list of the nonquantifiable benefits, and the potential direction of impact these benefits would have on the estimated monetized total annualized benefits in this table.

TABLE 57—NATIONAL RCC BENEFITS, OPTION 1a

[PFOA and PFOS MCLs of 4.0 ppt]

[Million $2021]

Benefits category	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected benefits	95th Percentile [1]	5th Percentile [1]	Expected benefits	95th Percentile [1]
Number of Non-Fatal RCC Cases Avoided	1,289.6	6,753.3	17,147.8	1,289.6	6,753.3	17,147.8
Number of RCC-Related Deaths Avoided	300.5	1,895.2	4,960.4	300.5	1,895.2	4,960.4
Total Annualized RCC Benefits (Million $2021) [2]	$52.92	$295.53	$744.64	$45.09	$213.78	$508.56

Notes:

Detail may not add exactly to total due to independent rounding.

[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 72. This range does not include the uncertainty described in Table 60.

[2] See Table 70 for a list of the nonquantifiable benefits, and the potential direction of impact these benefits would have on the estimated monetized total annualized benefits in this table.

TABLE 58—NATIONAL RCC BENEFITS, OPTION 1b

[PFOA and PFOS MCLs of 5.0 ppt]

[Million $2021]

Benefits category	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected benefits	95th Percentile [1]	5th Percentile [1]	Expected benefits	95th Percentile [1]
Number of Non-Fatal RCC Cases Avoided	1,017.6	5,681.7	14,962.1	1,017.6	5,681.7	14,962.1
Number of RCC-Related Deaths Avoided	235.9	1,602.1	4,317.6	235.9	1,602.1	4,317.6
Total Annualized RCC Benefits (Million $2021) [2]	$42.28	$250.60	$643.71	$36.32	$182.24	$446.80

Notes:

Detail may not add exactly to total due to independent rounding.

[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 72. This range does not include the uncertainty described in Table 60.

[2] See Table 70 for a list of the nonquantifiable benefits, and the potential direction of impact these benefits would have on the estimated monetized total annualized benefits in this table.

TABLE 59—NATIONAL RCC BENEFITS, OPTION 1c

[PFOA and PFOS MCLs of 10.0 ppt]

[Million $2021]

Benefits category	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected benefits	95th Percentile [1]	5th Percentile [1]	Expected benefits	95th Percentile [1]
Number of Non-Fatal RCC Cases Avoided	433.5	2,903.0	8,205.4	433.5	2,903.0	8,205.4
Number of RCC-Related Deaths Avoided	101.1	831.8	2,406.2	101.1	831.8	2,406.2
Total Annualized RCC Benefits (Million $2021) [2]	$18.58	$131.44	$367.38	$17.34	$97.30	$260.54

Notes:

Detail may not add exactly to total due to independent rounding.

[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 72. This range does not include the uncertainty described in Table 60.

[2] See Table 70 for a list of the nonquantifiable benefits, and the potential direction of impact these benefits would have on the estimated monetized total annualized benefits in this table.

4. Key Limitations and Uncertainties in the Benefits Analysis

The section below discusses the uncertainty information incorporated in the quantitative benefits analysis. There are additional sources of uncertainty and limitations that could not be modeled quantitatively as part of the national benefits analysis. These sources of uncertainty are characterized in detail in Section 6.8 of USEPA (2023j). This summary includes uncertainties that are specific to application of PK models for blood serum PFAS concentration estimation, developmental effects (*i.e.,* infant birth weight) modeling, CVD impacts modeling, RCC impacts modeling, and modeling of bladder cancer impacts from GAC treatment-related reductions in the sum of four trihalomethanes (THM4). Table 60 below presents the key limitations and uncertainties that apply to the benefits analysis for the proposed rule. EPA notes that in most cases it is not possible to judge the extent to which a particular limitation or uncertainty could affect the magnitude of the estimated benefits. Therefore, in each table below, EPA notes the potential direction of the impact on the quantified benefits (*e.g.,* a source of uncertainty that tends to underestimate quantified benefits indicates expectation for larger quantified benefits) but does not prioritize the entries with respect to the impact magnitude.

TABLE 60—KEY LIMITATIONS AND UNCERTAINTIES THAT APPLY TO BENEFITS ANALYSES CONSIDERED FOR THE PROPOSED PFAS RULE

Uncertainty/assumption	Effect on benefits estimate	Notes
EPA quantified benefits for three health endpoints for PFOA and PFOS.	Underestimate	For various reasons, EPA has not quantified the benefit of removing PFOA and PFOS from drinking water for most of the health endpoints PFOA and PFOS are expected to impact. See discussion in section C for more information about these nonquantifiable benefits.
EPA has only quantified benefits for one co-removed contaminant group (THM4).	Underestimate	Treatment technologies installed to remove PFAS can also removes numerous other contaminants, including other unregulated PFAS, additional regulated and unregulated DBPs, heavy metals, organic contaminants, pesticides, among others. These co-removal benefits may be significant, depending on co-occurrence, how many facilities install treatment and which treatment option they select.
EPA has not quantified benefits for any health endpoint for PFHxS, PFNA, PFBS, and HFPO–DA.	Underestimate	PFHxS, PFNA, PFBS, and HFPO–DA each have substantial health impacts on multiple health endpoints. See discussion in section D for more information about these nonquantifiable benefits.
The analysis considers PFOA/PFOS concentrations from NTNCWSs.	Overestimate	Some SDWIS population served estimates for NTNCWSs represent the both the population that has regular exposure to the NTNCWS' drinking water (*e.g.,* the employees at a location) and the peak day transient population (*e.g.,* customers) who have infrequent exposure to the NTNCWS' drinking water. Estimating the demographic distribution and the share of daily drinking water consumption for these two types of NTNCWS populations would be difficult across many of the industries which operate NTNCWSs. The inclusion of NTNCWS results is an overestimate of benefits because daily drinking water consumption for these populations is also modeled at their residential CWS.
EPA assumes that the effects of PFOA and PFOS exposures are independent.	Uncertain	The exposure-response functions used in benefits analyses assume that the effects of serum PFOA/PFOS on the health outcomes considered are independent and therefore additive. Due to limited evidence, EPA does not consider synergies or antagonisms in PFOA/PFOS exposure-response.
The derivation of PFOA/PFOS exposure-response functions for the relationship between PFOA/PFOS serum and associated health outcomes assumes that there are no threshold serum concentrations below which effects do not occur.	Overestimate	The new data and EPA's proposed MCLGs indicate that the levels at which adverse health effects could occur are much lower than previously understood when EPA issued the 2016 health advisories for PFOA and PFOS (70 parts per trillion or ppt)—including near zero for certain health effects. Therefore, the exposure-response functions used in benefits analyses assume that there are no threshold serum concentrations below which effects do not occur. This could result in a slight overestimate of benefits for certain health endpoints.
The exposure-response functions used to estimate risk assume causality.	Overestimate	Analyses evaluating the evidence on the associations between PFAS exposure and health outcomes are ongoing and EPA has not conclusively determined causality. As described in Section 6.2, EPA modeled health risks from PFOA/PFOS exposure for endpoints for which the evidence of association was found to be likely. These endpoints include birth weight, total cholesterol, and RCC. While the evidence supporting causality between DBP exposure and bladder cancer has increased since EPA's Stage 2 DBP Rule (NTP, 2021; Weisman et al., 2022), causality has not yet been conclusively determined (Regli et al., 2015).

TABLE 60—KEY LIMITATIONS AND UNCERTAINTIES THAT APPLY TO BENEFITS ANALYSES CONSIDERED FOR THE PROPOSED PFAS RULE—Continued

Uncertainty/assumption	Effect on benefits estimate	Notes
The analysis assumes that quantified benefits categories are additive.	Uncertain	EPA did not model birth weight, CVD, RCC, and bladder cancer benefits jointly, in a competing risk framework. Therefore, reductions in health risk in a specific benefits category do not influence health risk reductions in another benefits category. For example, lower risk of CVD and associated mortality implies a larger population that could benefit from cancer risk reductions, because cancer incidence grows considerably later in life.
The analysis does not take into account population growth and other changes in long-term trends.	Underestimate	The benefits analysis does not reflect the effects of growing population that may benefit from reduction in PFOA/PFOS exposure. Furthermore, EPA uses present-day information on life expectancy, disease, environmental exposure, and other factors, which are likely to change in the future.
For PWSs with multiple entry points, the analysis assumes a uniform population distribution across the entry points.	Uncertain	Data on the populations served by each entry point are not available and EPA therefore uniformly distributes system population across entry points. Effects of the regulatory alternative may be greater or smaller than estimated, depending on actual populations served by affected entry points. For one large system serving more than one million customers EPA has sufficient data on entry point flow to proportionally assign effected populations.
EPA does not characterize uncertainty associated with the Value of Statistical Life (VSL) reference value or VSL elasticity.	Uncertain	EPA did not quantitatively characterize the uncertainty for the VSL reference value and income elasticity. Because the economic value of avoided premature mortality comprises the majority of the overall benefits estimate, not considering uncertainty surrounding the VSL is a limitation.

E. Nonquantifiable Benefits of PFOA and PFOS Exposure Reduction

In this section EPA qualitatively discusses the potential health benefits resulting from reduced exposure to PFOA and PFOS in drinking water. These nonquantifiable benefits are expected to be realized as avoided adverse health effects as a result of the proposed NPDWR, in addition to the benefits that EPA has quantified. EPA anticipates additional benefits associated with developmental, cardiovascular, liver, immune, endocrine, metabolic, reproductive, musculoskeletal, and carcinogenic effects beyond those benefits associated with decreased PFOA and PFOS that EPA has quantified. The evidence for these adverse health effects is briefly summarized below.

EPA identified a wide range of potential health effects associated with exposure to PFOA and PFOS using five comprehensive Federal government documents that summarize the recent literature on PFAS (mainly PFOA and PFOS) exposure and its health impacts: EPA's Health Effects Support Documents for PFOA and PFOS, hereafter referred to as EPA HESDs (USEPA, 2016e; USEPA, 2016f); EPA's Proposed Maximum Contaminant Level Goals for PFOA and PFOS in Drinking Water (USEPA, 2023b; USEPA, 2023c); and the U.S. Department of Health and Human Services Agency for Toxic Substances and Disease Registry's (ATSDR) Toxicological Profile for Perfluoroalkyls (ATSDR, 2021). Each source presents comprehensive literature reviews on adverse health effects associated with PFOA and PFOS. EPA notes that the National Academies of Science, Engineering, and Medicine also published a report which includes a review of the adverse health effects for numerous PFAS (NASEM 2022). That document is included in the docket for this proposed rulemaking.

The most recent literature reviews on PFAS exposures and health impacts, which are included in EPA's *Proposed Maximum Contaminant Level Goal for PFOA and PFOS in Drinking Water* (USEPA, 2023b; USEPA, 2023c), discuss the weight of evidence supporting associations between PFOA or PFOS exposure with health outcomes as indicative (likely), inadequate, or suggestive. For the purposes of the reviews conducted to develop the proposed MCLGs, an association is deemed indicative when findings are consistent and supported by substantial evidence. The association is inadequate if there is a lack of information or an inability to interpret the available evidence (*e.g.,* findings across studies). The association is suggestive if findings are consistent but supported by a limited number of studies or analyses, or only observed in certain populations or species. Note that these determinations are based on information available as of February 2022.

Developmental effects: Exposure to PFOA and PFOS during developmental life stages is linked to developmental effects including but not limited to the infant birth weight effects that EPA quantified. Other developmental effects include SGA, birth length, head circumference at birth, and other effects (Verner et al., 2015; USEPA, 2016e; USEPA, 2016f; Negri et al., 2017; ATSDR, 2021; Waterfield et al., 2020; USEPA, 2023b; USEPA, 2023c). SGA is a developmental health outcome of interest when studying potential effects of PFOA/PFOS exposure because SGA infants have increased health risks during pregnancy and delivery as well as post-delivery (Osuchukwu and Reed, 2022). Epidemiology evidence related to PFOA/PFOS exposure was mixed; some studies reported increased risk of SGA with PFOA/PFOS exposure, while other studies observed null results (USEPA, 2023b; USEPA, 2023c). For instance, some studies suggested a potentially positive association between PFOA exposure and SGA (Govarts et al., 2018; Lauritzen et al., 2017; Y. Wang et al., 2016; USEPA, 2023b). For PFOS, few patterns were discernible, and overall confidence of an association between the two factors was low (USEPA, 2023c). Similarly, ATSDR found no strong associations between PFOA or PFOS exposure and increases in risk of SGA infants (ATSDR, 2021). Toxicology studies on PFOS exposures in rodents reported effects on multiple developmental toxicity endpoints (including increased mortality, decreased BW and BW change, skeletal and soft tissue effects, and delayed eye-opening) (USEPA, 2023c). For additional details on developmental studies and their individual outcomes, see Chapter 3.4.1 (Developmental) in USEPA (2023b) and USEPA (2023c).

Cardiovascular effects: In addition to the CVD effects that EPA quantified associated with changes in total cholesterol and blood pressure from exposure to PFOA or PFOS (see Section 6.2 of USEPA (2023j)), available evidence suggests an association between exposure to PFOA or PFOS and increased LDLC (ATSDR, 2021; USEPA, 2023b; USEPA, 2023c). High levels of LDLC lead to the buildup of cholesterol in the arteries, which can raise the risk of heart disease and stroke. Epidemiology studies showed a positive association between PFOA or PFOS exposure and LDLC levels in children (USEPA, 2023b; USEPA, 2023c). In particular, the evidence suggested positive associations between serum PFOA and PFOS levels and LDLC levels in adolescents ages 12–18, while positive associations between serum levels and LDLC levels in younger children were observed only for PFOA (ATSDR, 2021). Studies conducted on PFOS showed evidence of an association between exposure and LDLC levels in adults. For instance, all five epidemiology studies evaluated in EPA's Proposed MCLGs for PFOA and PFOS in Drinking Water reported positive associations, although the association was only statistically significant in obese women. Available evidence regarding the impact of PFOA and PFOS exposure on pregnant women was too limited for EPA to determine an association (ATSDR, 2021; USEPA, 2023b; USEPA, 2023c). For additional details on LDLC studies and their individual outcomes, see Chapter 3.4.4 (Cardiovascular) in USEPA (2023b) and USEPA (2023c).

Liver effects: Several biomarkers can be used clinically to diagnose liver diseases, including the ALT. High levels of serum ALT may indicate liver damage. Epidemiology data provides consistent evidence of a positive association between PFOS/PFOA exposure and ALT levels in adults (ATSDR, 2021; USEPA, 2023b; USEPA, 2023c). Studies of adults showed consistent evidence of a positive association between PFOA exposure and elevated ALT levels at both high exposure levels and exposure levels typical of the general population (USEPA, 2023b). There is also consistent epidemiology evidence of associations between PFOS and elevated ALT levels, although the associations observed were not large in magnitude. Study results showed inconsistent evidence on whether the observed changes led to changes in specific liver disease (USEPA, 2023c).

Associations between PFOS/PFOA exposure and ALT levels in children were less consistent than in adults (USEPA, 2023b; USEPA, 2023c), and PFOA toxicology studies showed increases in ALT and other liver enzymes across multiple species, sexes, and exposure paradigms (USEPA, 2023b). Toxicology studies on the impact of PFOS exposure on ALT in rodents also reported increases in ALT and other liver enzyme levels in rodents, though these increases were modest (USEPA, 2023c). For additional details on the ALT studies and their individual outcomes, see Section 3.4.2 (Hepatic) in USEPA (2023b) and USEPA (2023c).

Immune effects: Proper antibody response helps maintain the immune system by recognizing and responding to antigens. Some evidence suggests a relationship between PFOA exposure and immunosuppression; epidemiology studies showed suppression of at least one measure of the antibody response for tetanus and diphtheria among people with higher prenatal, childhood, and adult serum concentrations of PFOA (USEPA, 2023b). It is less clear whether PFOA exposure impacts antibody response to vaccinations other than tetanus and diphtheria (ATSDR, 2021; USEPA, 2023b). Epidemiology evidence suggests that children with preexisting immunological conditions are particularly susceptible to immunosuppression associated with PFOA exposure (USEPA, 2023b). Available studies supported an association between PFOS exposure and immunosuppression in children, where increased PFOS serum levels were associated with decreased antibody production (USEPA, 2023c). However, the association between PFOS exposure and immunosuppression was not apparent in adults (USEPA, 2023c).[8] Other potential associations with PFOS exposure with a high degree of uncertainty included asthma and infectious diseases (*e.g.,* the common cold, lower respiratory tract infections, pneumonia, bronchitis, ear infections) (USEPA, 2023c). Animal toxicology study evidence suggested that PFOA or PFOS exposure results in effects similarly indicating immune suppression, such as reduced response of immune cells (*e.g.,* natural killer cell activity and immunoglobulin production) (USEPA, 2023b; USEPA, 2023c). For additional details on antibody studies and their individual outcomes, see Section 3.4.3 (Immune) in USEPA (2023b) and USEPA (2023c).

Endocrine effects: Elevated thyroid hormone levels can accelerate metabolism and cause irregular heartbeat; low levels of thyroid hormone can cause neurodevelopmental effects, tiredness, weight gain, and increased susceptibility to the common cold. There is suggestive evidence of a positive association between PFOA/PFOS exposure and thyroid hormone disruption (ATSDR, 2021; USEPA, 2023b; USEPA, 2023c). Epidemiology studies reported inconsistent evidence regarding associations between PFOA or PFOS exposure and general endocrine outcomes, such as thyroid disease, hypothyroidism, and hypothyroxinemia (USEPA, 2023b; USEPA, 2023c). However, studies reported suggestive evidence of positive associations for thyroid stimulating hormone (TSH) in adults, and the thyroid hormone thyroxine (T4) in children (USEPA, 2023b; USEPA, 2023c). Toxicology studies indicated that PFOA and PFOS exposure leads to decreases in thyroid hormone levels[9] and adverse effects to the endocrine system (ATSDR, 2021; USEPA, 2023b; USEPA, 2023c). Despite uncertainty around the applicability of animal studies in this area, changes in thyroid hormone levels in animals did indicate adverse effects after PFOS and PFOA exposure that is relevant to humans (USEPA, 2023b; USEPA, 2023c). For additional details on endocrine effects studies and their individual outcomes, see Chapter C.2 (Endocrine) in USEPA (2023k) and USEPA (2023l).

Metabolic effects: Leptin is a hormone that controls hunger, and high leptin levels are associated with obesity, overeating, and inflammation (*e.g.,* of adipose tissue, the hypothalamus, blood vessels, and other areas). Evidence suggests a direct association between PFOA exposure and leptin levels in the general adult population (ATSDR, 2021; USEPA, 2023b). Based on a review of 69 human epidemiology studies, evidence of associations between PFOS and metabolic outcomes appears inconsistent, but in some studies, suggestive evidence was observed between PFOS exposure and leptin levels (USEPA, 2023c). Studies examining newborn leptin levels did not find associations with maternal PFOA levels (ATSDR, 2021). Maternal PFOS levels were also not associated with alterations in leptin levels (ATSDR, 2021). For additional details on metabolic effect studies and their individual outcomes, see Chapter C.3

[8] This may be due to the lack of high-quality data at present.

[9] Decreased thyroid hormone levels are associated with effects such as changes in thyroid and adrenal gland weight, hormone fluctuations, and organ histopathology (ATSDR, 2021; USEPA, 2023b; USEPA, 2023c).

(Metabolic/Systemic) in USEPA (2023k) and USEPA (2023l).

Reproductive effects: Studies of the reproductive effects from PFOA/PFOS exposure have focused on associations between exposure to these pollutants and increased risk of gestational hypertension and preeclampsia in pregnant women (ATSDR, 2021; USEPA, 2023b; USEPA, 2023c). Gestational hypertension (high blood pressure during pregnancy) can lead to fetal health outcomes such as poor growth and stillbirth. Preeclampsia—instances of gestational hypertension where the mother also has increased levels of protein in her urine—can similarly lead to fetal problems and maternal complications. The epidemiology evidence yields mixed (positive and non-significant) associations, with some suggestive evidence supporting positive associations between PFOA/PFOS exposure and both preeclampsia and gestational hypertension (ATSDR, 2021; USEPA, 2023b; USEPA, 2023c). For additional details on reproductive effects studies and their individual outcomes, see Chapter C.1 (Reproductive) in USEPA (2023k) and USEPA (2023l).

Musculoskeletal effects: Adverse musculoskeletal effects such as osteoarthritis and decreased bone mineral density impact bone integrity and cause bones to become brittle and more prone to fracture. There is limited evidence from studies pointing to effects of PFOS on skeletal size (height), lean body mass, and osteoarthritis (USEPA, 2023c). Epidemiology evidence suggested that PFOA exposure may be linked to decreased bone mineral density, bone mineral density relative to bone area, height in adolescence, osteoporosis, and osteoarthritis (ATSDR, 2021; USEPA, 2023b). Evidence from four PFOS studies suggests that PFOS exposure has a harmful effect on bone health, particularly measures of bone mineral density, with greater statistically significance of effects occurring among females (USEPA, 2023c). Some studies found that PFOA/PFOS exposure was linked to osteoarthritis, in particular among women under 50 years of age (ATSDR, 2021). However, other reviews reported mixed findings on the effects of PFOS exposure including decreased risk of osteoarthritis, increased risk for some demographic subgroups, or no association (ATSDR, 2021). For additional details on musculoskeletal effects studies and their individual outcomes, see Chapter C.8 (Musculoskeletal) in USEPA (2023k) and USEPA (2023l).

Cancer Effects: In EPA's *Proposed Maximum Contaminant Level Goal for PFOA in Drinking Water,* the Agency evaluates the evidence for carcinogenicity of PFOA that has been documented in both epidemiological and animal toxicity studies (USEPA, 2023b). The evidence in epidemiological studies is primarily based on the incidence of kidney and testicular cancer, as well as some evidence of breast cancer, which is most consistent in genetically susceptible subpopulations. Other cancer types have been observed in humans, although the evidence for these is generally limited to low confidence studies. The evidence of carcinogenicity in animal models is provided in three chronic oral animal bioassays in Sprague-Dawley rats which identified neoplastic lesions of the liver, pancreas, and testes (USEPA, 2023b). EPA determined that PFOA is *Likely to Be Carcinogenic to Humans,* as ''the evidence is adequate to demonstrate carcinogenic potential to humans but does not reach the weight of evidence for the descriptor Carcinogenic to Humans.'' This determination is based on the evidence of kidney and testicular cancer in humans and LCTs, PACTs, and hepatocellular adenomas in rats (USEPA, 2023b). EPA's benefits analysis for avoided RCC cases from reduced PFOA exposure is discussed in Section XII.D of this preamble and in Section 6.6 of USEPA (2023j).

In EPA's Proposed Maximum Contaminant Level Goal for PFOS in Drinking Water, the Agency evaluates the evidence for carcinogenicity of PFOS and concluded that several epidemiological studies and a single chronic cancer bioassay comprise the evidence database for the carcinogenicity of PFOS (USEPA, 2023c). The available epidemiology studies report elevated risk of bladder, prostate, kidney, and breast cancers after chronic PFOS exposure. However, in developing this proposal, EPA did not identify information to quantify the benefits that reducing PFOS would have on reducing various cancers in humans. The sole animal chronic cancer bioassay study provide support for multi-site tumorigenesis in male and female rats. EPA reviewed the weight of the evidence and determined that PFOS is *Likely to Be Carcinogenic to Humans,* as ''the evidence is adequate to demonstrate carcinogenic potential to humans but does not reach the weight of evidence for the descriptor Carcinogenic to Humans.''

EPA anticipates there are additional nonquantifiable benefits related to potential testicular, bladder, prostate, kidney, and breast carcinogenic effects summarized above. For additional details on cancer studies and their individual outcomes, see Chapter 3.5 (Cancer) in USEPA (2023b) and USEPA (2023c).

After assessing the available health and economic information, EPA was unable to quantify the benefits of avoided health effects discussed above. The Agency prioritized health endpoints with the strongest weight of evidence conclusions for this assessment and readily available data for monetization, namely cardiovascular effects, developmental effects, and carcinogenic effects. Several other health endpoints that had indicative evidence of associations with exposure to PFOA or PFOS have not been selected for the Economic Analysis for the reasons below.

- While immune effects had indicative evidence of associations with exposure to PFOA or PFOS, EPA did not identify the necessary information to connect the measured biomarker responses (*i.e.,* decrease in antibodies) to a clinical effect that could be valued in the Economic Analysis;
- Evidence indicates associations between PFOA and PFOS exposure and hepatic effects, such as increases in ALT. However, EPA is not able to model this health endpoint because ALT is a non-specific biomarker. Similar challenges with non-specificity of the biomarkers representing metabolic effects (*i.e.,* leptin) and musculoskeletal effects (*i.e.,* bone density) prevented economic analysis of these endpoints;
- There is indicative evidence of association with exposure to PFOA for testicular cancer; however, the available slope factor implied small changes in the risk of this endpoint. Furthermore, testicular cancer is rarely fatal which implies low expected economic value of reducing this risk because Value of Statistical Life is the driver of economic benefits evaluated in the Economic Analysis;
- Finally, other health endpoints, such as SGA and LDLC effects, were not modeled in the Economic Analysis because they overlap with effects that EPA did model. For example, infants that are considered SGA are often born at low birth weight or receive similar care to infants born at low birth weight. LDLC is a component of total cholesterol and could not be modeled separately as EPA used total cholesterol as an input to the ASCVD model to estimate CVD outcomes.

F. Nonquantifiable Benefits of Removal of PFAS Included in the Proposed Regulation and Co-Removed PFAS

EPA also qualitatively summarized the potential health benefits resulting from reduced exposure to PFAS other than PFOA and PFOS in drinking water. The proposed option and all regulatory alternatives are expected to result in benefits that have not been quantified. Treatment responses implemented to reduce PFOA and PFOS exposure under the proposed option and Options 1a–c are likely to remove some amount of additional PFAS contaminants where they co-occur. Co-occurrence among PFAS compounds has been observed frequently as discussed in Section VII of this preamble and USEPA (2023e). The proposed option will require reduced exposure to PFHxS, HFPO–DA, PFNA, and PFBS to below their respective HBWCs. EPA also expects that compliance actions taken under the proposed rule will remove additional unregulated co-occurring PFAS contaminants where present because the BATs have been demonstrated to co-remove additional PFAS (see Section XI of this preamble for more information). EPA identified a wide range of potential health effects associated with exposure to PFAS compounds other than PFOA and PFOS using documents that summarize the recent literature on exposure and associated health impacts: ATSDR's Toxicology Profile for Perfluoroalkyls (ATSDR, 2021); EPA's summary of HFPO–DA toxicity (USEPA, 2021b); publicly available draft IRIS assessments for PFBA, and PFHxA (USEPA, 2021k; USEPA, 2022h); a human health assessment for PFBS (USEPA, 2021a); and the recent National Academies of Sciences, Engineering, and Medicine Guidance on PFAS Exposure, Testing, and Clinical Follow-up (NASEM, 2022). Note that the determinations of associations between PFAS compounds and associated health effects are based on information available as of May 2022, and that the finalization of the IRIS assessments may result in slight changes to the discussion of evidence. Additional discussion of the evidence from epidemiology and toxicology studies for associations between different categories of health effects and exposure to additional PFAS can be found in Section 6.2 of USEPA (2023j).

Developmental effects: Toxicology and/or epidemiology studies observed evidence of associations with decreased birth weight and/or other developmental effects and exposure to PFBA, perfluorodecanoic acid (PFDA), PFHxS, HFPO–DA, PFNA, and PFBS. Specifically, data from animal toxicological studies support this association for PFBS, PFBA, and HFPO–DA while both animal toxicological and epidemiological studies support this association for PFDA and PFNA (ATSDR 2021) although some mixed results have been found for birth outcomes, particularly birth weight. In general, epidemiological studies did not find associations between perfluoroalkyl exposure and adverse pregnancy outcomes (miscarriage, preterm birth, or gestational age) for PFHxS, PFNA, PFDA, or perfluoroundecanoic acid (PFUnA) (ATSDR, 2021; NASEM, 2022).

Cardiovascular effects: Epidemiology and toxicology studies observed evidence of associations between PFNA or PFDA exposures and total cholesterol, LDLC, and HDLC. Evidence for associations between PFNA exposure and serum lipids levels in epidemiology studies was mixed; associations have been observed between serum PFNA levels and total cholesterol in general populations of adults but not in pregnant women, and evidence in children is inconsistent (ATSDR, 2021). Most epidemiology studies did not observe associations between PFNA and LDLC or HDLC (ATSDR, 2021).

Similarly inconsistent evidence was observed for PFDA (ATSDR, 2021). Other PFAS for which lipid outcomes were examined in toxicology or epidemiology studies observed limited to no evidence of associations. Studies have examined possible associations between various PFAS and blood pressure in humans or heart histopathology in animals. However, studies did not find suggestive or likely evidence for any PFAS in this summary except for PFOS.

Hepatic effects: Toxicology studies reported associations between exposure to PFAS compounds (PFBA, PFDA, PFHxA, PFHxS, HFPO–DA, and PFBS) and hepatotoxicity following inhalation, oral, and dermal exposure in animals. The results of these studies provide strong evidence that the liver is a sensitive target of PFHxS, PFNA, PFDA, PFUnA, PFBS, PFBA, perfluorododecanoic acid (PFDoDA), and PFHxA toxicity. Observed effects in rodents include increases in liver weight, hepatocellular hypertrophy, hyperplasia, and necrosis (ATSDR, 2021; USEPA, 2021b; USEPA, 2022h). Increases in serum enzymes (such as ALT) and decreases in serum bilirubin were observed in one epidemiologic study of PFHxS, and mixed effects were observed for epidemiologic studies for PFNA (ATSDR, 2021).

Immune effects: Epidemiology studies have reported evidence of associations between PFDA and PFHxS exposure and antibody response to tetanus or diphtheria. There is also some limited evidence for decreased antibody response for PFNA, PFUnA, and PFDoDA, although many of the studies did not find associations for these compounds. There is limited evidence for associations between PFHxS, PFNA, PFDA, PFBS, and PFDoDA and increased risk of asthma due to the small number of studies evaluating the outcome and/or conflicting study results. The small number of studies investigating immunotoxicity in humans following exposure to PFHpA and PFHxA did not find associations (ATSDR, 2021). Toxicology studies have reported evidence of associations between HFPO–DA and immune-related endpoints in animals (USEPA, 2021b). No laboratory animal studies were identified for PFUnA, PFHpA, PFDoDA, or perfluorooctane sulfonamide (FOSA). A small number of toxicology studies evaluated the immunotoxicity of other perfluoroalkyls and most did not evaluate immune function. No alterations in spleen or thymus organ weights or morphology were observed in studies on PFHxS, PFBA, and PFDA. A study on PFNA found decreases in spleen and thymus weights and alterations in splenic lymphocyte phenotypes (ATSDR, 2021).

Endocrine effects: Epidemiology studies have observed associations between serum PFHxS, PFNA, PFDA, and PFUnA and TSH, triiodothyronine (T3), or thyroxine (T4) levels or thyroid disease, however the results are not consistent across studies and a large number of studies have not found associations (ATSDR, 2021; NASEM, 2022). Toxicology studies have reported associations with thyroid hormone disruption in animals for PFBA, PFHxA, and PFBS (USEPA, 2021a; 2021k; USEPA, 2022h).

Metabolic effects: Epidemiology and toxicology studies have examined possible associations between various PFAS and metabolic effects, including leptin, BW, or body fat in humans or animals (ATSDR, 2021). However, evidence of associations was not suggestive or likely for any PFAS in this summary except for PFOA. Evidence did not include changes such as BW gain, pup BW, or other developmentally focused weight outcomes (ATSDR, 2021; NASEM, 2022).

Renal effects: A small number of epidemiology studies with inconsistent results evaluated possible associations between PFHxS, PFNA, PFDA, PFBS, PFDoDA, or PFHxA and renal functions

(including estimated glomerular filtration rate and increases in uric acid levels) (ATSDR, 2021; NASEM 2022). Toxicology studies have not observed impaired renal function or morphological damage following exposure to PFHxS, PFDA, PFUnA, PFBS, PFBA, PFDoDA, or PFHxA. Associations with kidney weight in animals were observed for HFPO–DA and PFBS (ATSDR, 2021; USEPA, 2021b; USEPA, 2021a).

Reproductive effects: A small number of epidemiology studies with inconsistent results evaluated possible associations between PFHxS, PFNA, PFUnA, PFDoDA, or PFHxA exposure and reproductive hormone levels (ATSDR, 2021). Some associations between PFAS (PFHxS, PFNA, or PFDA) exposures and sperm parameters have been observed. While there is suggestive evidence of an association between PFHxS or PFNA exposure and an increased risk of early menopause, this may be due to reverse causation since an earlier onset of menopause would result in a decrease in the removal of PFAS via menstrual blood. Epidemiological studies provide mixed evidence of impaired fertility (increased risks of longer time to pregnancy and infertility), with some evidence for PFHxS, PFNA, PFHpA, and PFBS but the results are inconsistent across studies or were only based on one study (ATSDR, 2021). Toxicology studies have evaluated the potential histological alterations in reproductive tissues, alterations in reproductive hormones, and impaired reproductive functions. No effect on fertility was observed for PFBS, PFHxS or PFDoDA, and no histological alterations were observed for PFBS, PFHxS and PFBA. One study found alterations in sperm parameters and decreases in fertility in mice exposed to PFNA, and one study for PFDoDA observed ultrastructural alterations in the testes (ATSDR, 2021).

Musculoskeletal effects: Epidemiology studies observed evidence of associations between PFNA or PFHxS and musculoskeletal effects including osteoarthritis and bone mineral density, but data are limited to two studies (ATSDR, 2021). Epidemiology studies reported limited to no evidence of associations between exposure to PFDA and musculoskeletal effects. Toxicology studies reported no morphological alterations in bone or skeletal muscle in animals exposed to PFBA, PFHxA, PFHxS, or PFBS (ATSDR, 2021).

Hematological effects: A single epidemiologic study reported on blood counts in pregnant Chinese women exposed to PFHxA and observed no correlations with any of the hematological parameters evaluated (total white blood cell counts, red blood cell (RBC) counts, and hemoglobin) (USEPA, 2022h). Epidemiological data were not identified for the other PFAS (ATSDR, 2021). A limited number of toxicology studies observed alterations in hematological indices following exposure to higher doses of PFHxS, PFDA, PFUnA, PFBS, PFBA, PFDoDA, or PFHxA (ATSDR, 2021). Toxicology studies observed evidence of association between HFPO–DA exposure and hematological effects including decreases in RBC number, hemoglobin, and percentage of RBCs in the blood (USEPA, 2021b).

Other non-cancer effects: A limited number of epidemiology and toxicology studies have examined possible associations between other PFAS and dermal, ocular, and other non-cancer effects. However, evidence of associations was not considered to be suggestive or likely for any PFAS compound in this summary except for PFOA and PFOS (ATSDR, 2021; USEPA, 2021a; USEPA, 2021k; USEPA, 2022h).

Cancer effects: A small number of epidemiology studies reported limited associations between exposure to multiple PFAS (*i.e.,* PFHxS, PFDA, PFUnA, and FOSA) and cancer effects. No consistent associations were observed for breast cancer risk for PFHxS, PFNA, PFHpA, or PFDoDA; increased breast cancer risks were observed for PFDA and FOSA, but this was based on a single study (Bonefeld-Jørgensen et al., 2014). No associations between exposure to PFHxS, PFNA, PFDA, or PFUnA, individually and prostate cancer risk were observed. However, among men with a first-degree relative with prostate cancer, associations were observed for PFHxS, PFDA, and PFUnA, but not for PFNA (ATSDR, 2021). Epidemiological studies examining potential cancer effects were not identified for PFBS, PFBA, or PFHxA (ATSDR, 2021). Aside from a study that suggested an increased incidence of liver tumors in rats exposed to high doses of HFPO–DA, toxicology studies reported no evidence of associations between exposure to PFDA or PFHxA and risk of cancer (ATSDR, 2021; USEPA, 2021b).

Coronavirus Disease 2019 (COVID–19): A cross-sectional study in Denmark (Grandjean et al., 2020) showed that PFBA exposure was associated with increasing severity of COVID–19, with an OR of 1.77 [95% Confidence Interval (CI): 1.09, 2.87] after adjustment for age, sex, sampling site, and interval between blood sampling and diagnosis. However, the study design does not allow for causal determinations.

A case-control study showed increased risk for COVID–19 infection with high urinary PFAS (including PFOA, PFOS, PFHxA, PFHpA, PFHxS, PFNA, PFBS, PFDA, PFUnA, PFDoDA, perfluorotridecanoic acid [PFTrDA], and perfluorotetradecanoic acid [PFTeDA]) levels (Ji et al., 2021). Adjusted odds ratios were 1.94 (95% CI: 1.39, 2.96) for PFOS, 2.73 (95% CI: 1.71, 4.55) for PFOA, and 2.82 (95% CI: 1.97, 3.51) for sum PFAS, while other PFAS were not significantly associated with COVID–19 susceptibility after adjusting for confounders.

In a spatial ecological analysis, Catelan et al. (2021) showed higher mortality risk for COVID–19 in a population heavily exposed to PFAS (including PFOA, PFOS, PFHxS, PFBS, PFBA, perfluoropentanoic acid [PFPeA], PFHxA, and PFHpA) via drinking water in Veneto, Italy. Overall, results may indicate a general immunosuppressive effect of PFAS and/or increased COVID–19 respiratory toxicity due to a concentration of PFBA in the lungs, however the study design precludes causal determinations.

Although these studies provide a suggestion of possible associations, the body of evidence does not permit any conclusions about the relationship between COVID–19 infection, severity, or mortality, and exposures to PFAS.

G. Benefits Resulting From Disinfection By-Product Co-Removal

As part of its health risk reduction and cost analysis, EPA is directed by SDWA to evaluate quantifiable and nonquantifiable health risk reduction benefits for which there is a factual basis in the rulemaking record to conclude that such benefits are likely to occur from reductions in co-occurring contaminants that may be attributed solely to compliance with the MCL (SDWA 1412(b)(3)(C)(II)). These co-occurring contaminants are expected to include additional PFAS contaminants not directly regulated by the proposed PFAS NPDWR, co-occurring chemical contaminants such as SOCs, VOCs, and DBP precursors. In this section, EPA presents a quantified estimate of the reductions in DBP formation potential that are likely to occur as a result of compliance with the proposed PFAS NPDWR. The methodology detailed below and in Section 6.7.1 of USEPA (2023j) to estimate DBP reductions was externally peer reviewed by three experts in GAC treatment for PFAS removal and DBP formation potential (USEPA, 2023m). The external peer reviewers supported EPA's approach

and edits based on their recommendations for clarity and completeness are reflected in the following analysis and discussion. Some peer reviewer comments suggested EPA provide additional baseline data summaries for TOC and THM4 occurrence information. EPA intends to evaluate and potentially include these additional summaries in the EA for the final rule.

DBPs are formed when disinfectants react with naturally occurring materials in water. There is a substantial body of literature on DBP precursor occurrence and THM4 formation mechanisms in drinking water treatment. EPA regulates 11 individual DBPs from three subgroups: THM4, five haloacetic acids (HAA5), and two inorganic compounds (bromate and chlorite) under the Stage 2 Disinfectants and Disinfection Byproducts Rule (USEPA, 2006a). The formation of THM4 in a particular drinking water treatment plant is a function of several factors including disinfectant type, disinfectant dose, bromide concentration, organic material type and concentration, temperature, pH, and system residence times. Epidemiology studies have shown that THM4 exposure, a surrogate for chlorinated drinking water, is associated with an increased risk of bladder cancer, among other diseases (Cantor et al., 1998; Cantor et al., 2010; Costet et al., 2011; Beane Freeman et al., 2017; King and Marrett, 1996; Regli et al., 2015; USEPA, 2019d; Villanueva et al., 2004; Villanueva et al., 2006; Villanueva et al., 2007). These studies considered THM4 as surrogate measures for DBPs formed from the use of chlorination that may co-occur. The relationships between exposure to DBPs, specifically THM4 and other halogenated compounds resulting from water chlorination, and bladder cancer are further discussed in Section 6.7 of USEPA (2023j). Reductions in exposure to THM4 is expected to yield public health benefits, including a decrease in bladder cancer incidence (Regli et al., 2015). Among other things, Weisman et al. (2022) found that there is even a stronger weight of evidence linking DBPs and bladder cancer since the promulgation of the 2006 Stage 2 DBP regulations and publication of Regli et al. (2015). While not the regulated contaminant for this rulemaking, the expected reduction of DBP precursors and subsequent DBPs that result from this rulemaking are anticipated to reduce cancer risk in the U.S. population.

GAC adsorption has been used to remove SOCs, taste and odor compounds, and NOM during drinking water treatment (Chowdhury et al., 2013). Recently, many water utilities have installed or are considering installing GAC and/or other advanced technologies as a protective or mitigation measure to remove various contaminants of emerging concern, such as PFAS (Dickenson and Higgins, 2016). Because NOM often exists in a much higher concentration (in mg/L) than trace organics (in µg/L or ppt) in water, NOM, often measured as TOC, can interfere with the adsorption of trace organics by outcompeting the contaminants for adsorption sites and by general fouling (blockage of adsorption pores) of the GAC.

NOM and inorganic matter are precursors for the formation of trihalomethanes (THMs) and other DBPs when water is disinfected using chlorine and other disinfectants to control microbial contaminants in finished drinking water. Removal of DBP precursors through adsorption onto GAC has been included as a treatment technology for compliance with the existing DBP Rules and is a BAT for the Stage 2 DBP Rule. DOM can be removed by GAC through adsorption and biodegradation (Crittenden et al., 1993; Kim et al., 1997; Yapsakli et al., 2010). GAC is well-established for removal of THM and haloacetic acid precursors (Cheng et al., 2005; Dastgheib et al., 2004; Iriarte-Velasco et al., 2008; Summers et al., 2013; Cuthbertson et al., 2019; L. Wang et al., 2019). In addition to removal of organic DBPs, GAC also exhibits some capacity for removal of inorganic DBPs such as bromate and chlorite (Kirisits et al., 2000; Sorlini et al., 2005) and removal of preformed organic DBPs via adsorption and biodegradation (Jiang, et al., 2017; Terry and Summers, 2018). Further, GAC may offer limited removal of dissolved organic nitrogen (Chili et al., 2012).

Based on an extensive review of published literature in sampling studies where both contaminant groups (PFAS and DBPs) were sampled, there is limited information about PFAS removal and co-occurring reductions in DBPs, specifically THMs. To help inform its Economic Analysis, EPA relied on the DBP Information Collection Rule Treatment Study Database and DBP formation studies to estimate reductions in THM4 (ΔTHM4) that may occur when GAC is used to remove PFAS. Subsequently, these results were compared to THM4 data from PWSs that have detected PFAS and have indicated use of GAC.

The objective of EPA's co-removal benefits analysis was to determine the reduction in bladder cancer cases associated with the decrease of regulated THM4 in treatment plants due to the installation of GAC for PFAS removal. Evaluation of the expected reductions in bladder cancer risk resulting from treatment of PFAS in drinking water involves five steps:

1. Estimating the number of systems expected to install GAC treatment in compliance with the proposed PFAS NPDWR and affected population size;
2. Estimating changes in THM4 levels that may occur when GAC is installed for PFAS removal based on influent TOC levels;
3. Estimating changes in the cumulative risk of bladder cancer using an exposure-response function linking lifetime risk of bladder cancer to THM4 concentrations in residential water supply (Regli et al., 2015);
4. Estimating annual changes in the number of bladder cancer cases and excess mortality in the bladder cancer population corresponding to changes in THM4 levels under the regulatory alternative in all populations alive during or born after the start of the evaluation period; and
5. Estimating the economic value of reducing bladder cancer mortality from baseline to regulatory alternative levels, using the Value of a Statistical Life and cost of illness measures, respectively.

EPA expects PWSs that exceed the PFAS MCLs to consider both treatment and non-treatment options to achieve compliance with the drinking water standard. EPA assumes that the populations served by systems with entry points expected to install GAC based on the compliance forecast detailed in Section 5.3 of USEPA (2023j) will receive the DBP exposure reduction benefits. EPA notes that other compliance actions included in the compliance forecast could result in DBP exposure reductions, including installation of RO. However, these compliance actions are not included in the DBP benefits analysis because this DBP exposure reduction function is specific to GAC. Switching water sources may or may not result in DBP exposure reductions, therefore EPA assumed no additional DBP benefits for an estimated percentage of systems that elect this compliance option. Lastly, EPA assumed no change in DBP exposure at water systems that install IX, as that treatment technology is not expected to remove a substantial amount of DBP precursors. EPA also assumes that the PWSs in this analysis use chlorine only for disinfection and have conventional treatment in place prior to installation of GAC technology.

EPA used the relationship between median raw water TOC levels and changes in THM4 levels estimated in the 1998 DBP Information Collection

Rule to estimate changes in THM4 concentrations in the finished water of PWSs fitted with GAC treatment. For more detail on the approach EPA used to apply changes in THM4 levels to PWSs treating for PFAS under the proposed rule, please see Section 6.7 of USEPA (2023j).

EPA models a scenario where reduced exposures to THM4 begin in 2026. Therefore, EPA assumed that the population affected by reduced THM4 levels resulting from implementation of GAC treatment is exposed to baseline THM4 levels prior to actions to comply with the rule (*i.e.,* prior to 2026) and to reduced THM4 levels from 2026 through 2104. Rather than modeling individual locations, EPA evaluates changes in bladder cancer cases among the aggregate population per treatment scenario and source water type that is expected to install GAC treatment to reduce PFAS levels. Because of this aggregate modeling approach, EPA used national-level population estimates to distribute the SDWIS populations based on single-year age and sex and to grow the age- and sex-specific populations to future years. Appendix B to USEPA (2023j) provides additional details on estimation of the affected population.

Regli et al. (2015) analyzed the potential lifetime bladder cancer risks associated with increased bromide levels in surface source water resulting in increased THM4 levels in finished water. To account for variable levels of uncertainty across the range of THM4 exposures from the pooled analysis of Villanueva et al. (2004), they derived a weighted mean slope factor from the odds ratios reported in Villanueva et al. (2004). They showed that, while the original analysis deviated from linearity, particularly at low concentrations, the overall pooled exposure-response relationship for THM4 could be well-approximated by a linear slope factor that predicted an incremental lifetime cancer risk of 1 in ten thousand exposed individuals (10–4) per 1 µg/L increase in THM4. The linear slope factor developed by Regli et al. (2015) enables estimation of the changes in the lifetime bladder cancer risk associated with lifetime exposures to reduced THM4 levels. Weisman et al. (2022) applied the dose-response information from Regli et al. (2015) and developed a robust, national-level risk assessment of DBP impacts, where the authors estimated that approximately 8,000 of 79,000 annual U.S. bladder cancer cases are attributable to chlorination DBPs, specifically associated with THM4 concentrations.

EPA estimated changes in annual bladder cancer cases and annual excess mortality in the bladder cancer population due to estimated reductions in lifetime THM4 exposure using a life table-based approach. This approach was used because (1) annual risk of new bladder cancer should be quantified only among those not already experiencing this chronic condition, and (2) bladder cancer has elevated mortality implications.

EPA used recurrent life table calculations to estimate a water source type-specific time series of bladder cancer incidence for a population cohort characterized by sex, birth year, and age at the beginning of the PFOA/PFOS evaluation period under the baseline scenario and the GAC regulatory alternative. The estimated risk reduction from lower exposure to DBPs in drinking water is calculated based on changes in THM4 levels used as inputs to the Regli et al. (2015)-based health impact function, described in more detail in Section 6.7 of USEPA (2023j). The life table analysis accounts for the gradual changes in lifetime exposures to THM4 following implementation of GAC treatment under the regulatory alternative compared to the baseline. The outputs of the life table calculations are the water source type-specific estimates of the annual change in the number of bladder cancer cases and the annual change in excess bladder cancer population mortality.

EPA uses the Value of a Statistical Life to estimate the benefits of reducing mortality associated with bladder cancer in the affected population. EPA uses the cost of illness-based valuation to estimate the benefits of reducing morbidity associated with bladder cancer. Specifically, EPA used bladder cancer treatment-related medical care and opportunity cost estimates from Greco et al. (2019). Table 61 shows the original cost of illness estimates from Greco et al. (2019), along with the values updated to $2021 used in this analysis.

TABLE 61—BLADDER CANCER MORBIDITY VALUATION

Bladder cancer subtype [1]	Type of cost	Cost in first year ($2010) [2]	Cost in subsequent years ($2010) [2]	Cost in first year ($2021) [c]	Cost in subsequent years ($2021) [3]
Non-invasive	Medical care	9,133	916	12,350	1,239
	Opportunity cost	4,572	24	5,921	31
	Total cost	13,705	941	18,272	1,270
Invasive	Medical care	26,951	2,455	36,445	3,320
	Opportunity cost	10,513	77	13,616	100
	Total cost	37,463	2,532	50,061	3,420

Notes:
[1] The estimates for non-invasive bladder cancer subtype were used to value local, regional, and unstaged bladder cancer morbidity reductions, while the estimates for the invasive bladder cancer subtype were used to value distant bladder cancer morbidity reductions.
[2] The estimates come from Greco et al. (2019).
[3] To adjust for inflation, EPA used U.S. BLS CPI for All Urban Consumers: Medical Care Services in U.S. (City Average).

Table 62 to 65 presents the estimated changes in bladder cancer cases and excess bladder cancer mortality from exposure to THM4 due to implementation of GAC treatment by option. EPA estimated that, over the evaluation period, the proposed rule will result in an average annual benefit from avoided bladder cancer cases and deaths from $131 million ($2021, 7% discount rate) to $221 million ($2021, 3% discount rate).

TABLE 62—NATIONAL BLADDER CANCER BENEFITS, PROPOSED OPTION

[PFOA and PFOS MCLs of 4.0 ppt and HI of 1.0]

[Million $2021]

Benefits category	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected benefits	95th Percentile [1]	5th Percentile [1]	Expected benefits	95th Percentile [1]
Number of Non-Fatal Bladder Cancer Cases Avoided	4,079.1	5,238.6	6,475.3	4,079.1	5,238.6	6,475.3
Number of Bladder Cancer-Related Deaths Avoided	1,436.0	1,844.4	2,280.0	1,436.0	1,844.4	2,280.0
Total Annualized Bladder Cancer Benefits (Million $2021) [2]	$173.09	$221.30	$273.62	$102.08	$130.63	$161.56

Notes:

[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 72. This range does not include the uncertainty described in Table 60.

[2] See Table 70 for a list of the nonquantifiable benefits, and the potential direction of impact these benefits would have on the estimated monetized annualized benefits in this table.

TABLE 63—NATIONAL BLADDER CANCER BENEFITS, OPTION 1a

[PFOA and PFOS MCLs of 4.0 ppt]

[Million $2021]

Benefits category	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected benefits	95th Percentile [1]	5th Percentile [1]	Expected benefits	95th Percentile [1]
Number of Non-Fatal Bladder Cancer Cases Avoided	4,066.1	5,219.4	6,488.8	4,066.1	5,219.4	6,488.8
Number of Bladder Cancer-Related Deaths Avoided	1,431.5	1,837.6	2,284.9	1,431.5	1,837.6	2,284.9
Total Annualized Bladder Cancer Benefits (Million $2021) [2]	$171.72	$220.48	$274.24	$101.34	$130.15	$161.56

Notes:

[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 72. This range does not include the uncertainty described in Table 60.

[2] See Table 70 for a list of the nonquantifiable benefits, and the potential direction of impact these benefits would have on the estimated monetized annualized benefits in this table.

TABLE 64—NATIONAL BLADDER CANCER BENEFITS, OPTION 1b

[PFOA and PFOS MCLs of 5.0 ppt]

[Million $2021]

Benefits category	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected benefits	95th Percentile [1]	5th Percentile [1]	Expected benefits	95th Percentile [1]
Number of Non-Fatal Bladder Cancer Cases Avoided	3,342.7	4,334.3	5,382.5	3,342.7	4,334.3	5,482.5
Number of Bladder Cancer-Related Deaths Avoided	1,176.8	1,526.0	1,895.3	1,176.8	1,526.0	1,895.3
Total Annualized Bladder Cancer Benefits (Million $2021) [2]	$141.17	$183.10	$227.85	$83.31	$108.08	$135.37

Notes:

[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 72. This range does not include the uncertainty described in Table 60.

[2] See Table 70 for a list of the nonquantifiable benefits, and the potential direction of impact these benefits would have on the estimated monetized annualized benefits in this table.

TABLE 65—NATIONAL BLADDER CANCER BENEFITS, OPTION 1c

[PFOA and PFOS MCLs of 10.0 ppt]

[Million $2021]

Benefits category	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected benefits	95th Percentile [1]	5th Percentile [1]	Expected benefits	95th Percentile [1]
Number of Non-Fatal Bladder Cancer Cases Avoided	1,615.9	2,175.5	2,807.4	1,615.9	2,175.5	2,807.4
Number of Bladder Cancer-Related Deaths Avoided	568.9	766.0	988.6	568.9	766.0	988.6
Total Annualized Bladder Cancer Benefits (Million $2021) [2]	$68.26	$91.90	$118.64	$40.29	$54.25	$70.10

Notes:

[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 72. This range does not include the uncertainty described in Table 60.

[2] See Table 70 for a list of the nonquantifiable benefits, and the potential direction of impact these benefits would have on the estimated monetized annualized benefits in this table.

H. Comparison of Costs and Benefits

This section provides a comparison of the costs and benefits of the proposed rule, as described in Chapter 7 of the Economic Analysis. Included here are estimates of total quantified annualized costs and benefits for the proposed option and regulatory alternatives considered, as well as considerations for the nonquantifiable costs and benefits. EPA notes that it cannot make determinations as to whether the costs are justified by the benefits based on quantified costs and benefits alone, as SDWA 1412(b)(3)(C)(I) and (II) mandates that the Agency must consider nonquantifiable benefits.

The incremental cost is the difference between quantified costs that will be incurred if the proposed rule is enacted over and above current baseline conditions. Incremental benefits reflect the avoided future adverse health outcomes attributable to PFAS reductions and co-removal of additional contaminants due to actions undertaken to comply with the proposed rule.

Table 66 provides the incremental quantified costs and benefits of the proposed option at both a 3 percent and a 7 percent discount rate in 2021 dollars. The top row shows total monetized annualized costs including total PWS costs and primacy agency costs. The second row shows total monetized annualized benefits including all endpoints that could be quantified and valued. For both, the estimates are the expected (mean) values and the 5th percentile and 95th percentile estimates from the uncertainty distribution. These percentile estimates come from the distributions of annualized costs and annualized benefits generated by the 4,000 iterations of SafeWater MCBC. Therefore, these distributions reflect the joint effect of the multiple sources of variability and uncertainty for costs, benefits, and PFAS occurrence, as detailed in Sections 5.1.2, 6.1.2, and Chapter 4 of the Economic Analysis, respectively (USEPA, 2023j). For further discussion of the quantified uncertainties in the Economic Analysis, see Section G of this preamble below.

The third row shows net benefits (benefits minus costs). At a 3 percent discount rate, the net annual incremental benefits are $461 million. The uncertainty range for net benefits is a negative $45 million to $1,141 million. At a 7 percent discount rate, the net annual incremental quantified benefits are a negative $297 million. The uncertainty range for net benefits is a negative $628 million to $141 million.

TABLE 66—ANNUALIZED QUANTIFIED NATIONAL COSTS AND BENEFITS, PROPOSED OPTION

[PFOA and PFOS MCLs of 4.0 ppt and HI of 1.0; Million $2021]

	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected value	95th Percentile [1]	5th Percentile [1]	Expected value	95th Percentile [1]
Total Annualized Rule Costs [2 3 4]	$704.53	$771.77	$850.40	$1,106.01	$1,204.61	$1,321.01
Total Annualized Rule Benefits [4]	659.91	1,232.98	1,991.51	477.69	908.11	1,462.43
Total Net Benefits	−44.62	461.21	1,141.11	−628.31	−296.50	141.42

Notes:

Detail may not add exactly to total due to independent rounding.

[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 71 and Table 72. This range does not include the uncertainty described in Table 41 for costs and Table 60 for benefits.

[2] Total quantified national cost values do not include the incremental treatment costs associated with the cooccurrence of HFPO–DA, PFBS, and PFNA at systems required to treat for PFOA, PFOS, and PFHxS. The total quantified national cost values do not include treatment costs for systems that would be required to treat based on HI exceedances apart from systems required to treat because of PFHxS occurrence alone. See Appendix N, Section 3 of the Economic Analysis (USEPA, 2023i) for additional detail on co-occurrence incremental treatment costs and additional treatment costs at systems with HI exceedances.

[3] PFAS-contaminated wastes are not considered hazardous wastes at this time and therefore total costs reported in this table do not include costs associated with hazardous waste disposal of spent filtration materials. To address stakeholder concerns about potential costs for disposing PFAS-contaminated wastes as hazardous should they be regulated as such in the future, EPA conducted a sensitivity analysis with an assumption of hazardous waste disposal for illustrative purposes only. See Appendix N, Section 2 of the Economic Analysis (USEPA, 2023i) for additional detail.

[4] See Table 70 for a list of the nonquantifiable benefits and costs, and the potential direction of impact these benefits and costs would have on the estimated monetized total annualized benefits and costs in this table.

Tables 67 to 69 summarize the total annual costs and benefits for Options 1a, 1b, and 1c, respectively.

TABLE 67—ANNUALIZED QUANTIFIED NATIONAL COSTS AND BENEFITS, OPTION 1a

[PFOA and PFOS MCLs of 4.0 ppt; Million $2021]

	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected value	95th Percentile [1]	5th Percentile [1]	Expected value	95th Percentile [1]
Total Annualized Rule Costs [2 3]	$688.09	$755.82	$833.48	$1,078.51	$1,177.31	$1,292.01
Total Annualized Rule Benefits [3]	651.19	1,216.08	1,971.01	471.53	895.36	1,456.23
Total Net Benefits	−36.90	460.26	1,137.53	−606.97	−281.95	164.22

Notes:

Detail may not add exactly to total due to independent rounding.

[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 71 and Table 72. This range does not include the uncertainty described in Table 41 for costs and Table 60 for benefits.

[2] PFAS-contaminated wastes are not considered hazardous wastes at this time and therefore total costs reported in this table do not include costs associated with hazardous waste disposal of spent filtration materials. To address stakeholder concerns about potential costs for disposing PFAS-contaminated wastes as hazardous should they be regulated as such in the future, EPA conducted a sensitivity analysis with an assumption of hazardous waste disposal for illustrative purposes only. See Appendix N, Section 2 of the Economic Analysis (USEPA, 2023i) for additional detail.

[3] See Table 70 for a list of the nonquantifiable benefits and costs, and the potential direction of impact these benefits and costs would have on the estimated monetized total annualized benefits and costs in this table.

TABLE 68—ANNUALIZED QUANTIFIED NATIONAL COSTS AND BENEFITS, OPTION 1b

[PFOA and PFOS MCLs of 5.0 ppt; Million $2021]

	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected value	95th Percentile [1]	5th Percentile [1]	Expected value	95th Percentile [1]
Total Annualized Rule Costs [2 3]	$558.71	$611.01	$674.32	$864.74	$942.28	$1,035.56
Total Annualized Rule Benefits [3]	553.37	1,046.91	1,706.81	398.21	773.33	1,292.96
Total Net Benefits	−5.34	435.90	1,032.49	−466.53	−168.95	257.40

Notes:

Detail may not add exactly to total due to independent rounding.

[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 71 and Table 72. This range does not include the uncertainty described in Table 41 for costs and Table 60 for benefits.

[2] PFAS-contaminated wastes are not considered hazardous wastes at this time and therefore total costs reported in this table do not include costs associated with hazardous waste disposal of spent filtration materials. To address stakeholder concerns about potential costs for disposing PFAS-contaminated wastes as hazardous should they be regulated as such in the future, EPA conducted a sensitivity analysis with an assumption of hazardous waste disposal for illustrative purposes only. See Appendix N, Section 2 of the Economic Analysis (USEPA, 2023i) for additional detail.

[3] See Table 70 for a list of the nonquantifiable benefits and costs, and the potential direction of impact these benefits and costs would have on the estimated monetized total annualized benefits and costs in this table.

TABLE 69—ANNUALIZED QUANTIFIED NATIONAL COSTS AND BENEFITS, OPTION 1c

[PFOA and PFOS MCLs of 10.0 ppt; Million $2021]

	3% Discount rate			7% Discount rate		
	5th Percentile [1]	Expected value	95th Percentile [1]	5th Percentile [1]	Expected value	95th Percentile [1]
Total Annualized Rule Costs [2 3]	$269.36	$292.57	$320.76	$396.22	$430.87	$472.20
Total Annualized Rule Benefits [3]	280.42	584.80	1,030.56	208.71	436.24	784.59
Total Net Benefits	11.06	292.23	709.80	−187.51	5.36	312.39

Notes:

Detail may not add exactly to total due to independent rounding.

[1] The 5th and 95th percentile range is based on modeled variability and uncertainty described in section XIII.I of this preamble and Table 71 and Table 72. This range does not include the uncertainty described in Table 41 for costs and Table 60 for benefits.

[2] PFAS-contaminated wastes are not considered hazardous wastes at this time and therefore total costs reported in this table do not include costs associated with hazardous waste disposal of spent filtration materials. To address stakeholder concerns about potential costs for disposing PFAS-contaminated wastes as hazardous should they be regulated as such in the future, EPA conducted a sensitivity analysis with an assumption of hazardous waste disposal for illustrative purposes only. See Appendix N, Section 2 of the Economic Analysis (USEPA, 2023i) for additional detail.

[3] See Table 70 for a list of the nonquantifiable benefits and costs, and the potential direction of impact these benefits and costs would have on the estimated monetized total annualized benefits and costs in this table.

The benefit-cost analysis reported dollar figures presented above reflect benefits and costs that could be quantified for each regulatory alternative given the best available scientific data. EPA notes that the quantified benefit-cost results above are not representative of all benefits and costs anticipated under the proposed NPDWR. Due to occurrence, health, and economic data limitations, there are several adverse health effects associated with PFAS exposure and costs associated with treatment that EPA could not estimate in a quantitative manner.

PFAS exposure is associated with a wide range of adverse health effects including reproductive effects such as decreased fertility; increased high blood pressure in pregnant women; developmental effects or delays in children, including low birth weight, accelerated puberty, bone variations, or behavioral changes; increased risk of some cancers, including prostate, kidney, and testicular cancers; reduced ability of the body's immune system to fight infections, including reduced vaccine response; interference with the body's natural hormones; and increased cholesterol levels and/or risk of obesity. Based on the available data, EPA is only able to quantify three PFOA- and PFOS-related health endpoints in this analysis. All regulatory alternatives are expected to produce substantial benefits that have not been quantified. Treatment responses implemented to remove PFOA and PFOS under Options 1a-c are likely to remove some amount of additional PFAS contaminants where they co-occur. Co-occurrence among PFAS compounds has been observed frequently as discussed in the PFAS Occurrence Technical Support Document (USEPA, 2023e). The proposed option is expected to produce the greatest reduction in exposure to PFAS compounds because it includes PFHxS, HFPO–DA, PFNA, and PFBS in the regulation. Inclusion of the HI will trigger more systems into treatment (as shown in Section 4.4.4 of the Economic

Analysis) and provides enhanced public health protection by ensuring reductions of these additional compounds when present above the HI of 1.0. EPA conducted a sensitivity analysis to evaluate the additional benefits anticipated due to regulating PFAS compounds beyond PFOA and PFOS. Specifically, EPA's sensitivity analysis demonstrates the potential significant quantified benefits associated with infant birth weight expected to result from reductions in PFNA under the proposed rule. For further discussion of the quantitative and qualitative benefits associated with the proposed rule, see Section 6.2 of the Economic Analysis.

EPA also expects that the proposed option will result in additional nonquantifiable costs in comparison to Options 1a-c. As noted above, the HI is expected to trigger more systems into more frequent monitoring and treatment. Due to occurrence data limitations, EPA has quantified the national treatment and monitoring costs associated with the HI for PFHxS only and has not quantified the cost impacts associated with HI exceedances resulting from HFPO–DA, PFNA, and PFBS. In instances when concentrations of HFPO–DA, PFNA, and PFBS are high enough to cause or contribute to an HI exceedance when the concentrations of PFOA, PFOS, and PFHxS would not have already otherwise triggered treatment, the modeled costs may be underestimated. If these PFAS occur in isolation at levels that affect treatment decisions, or if these PFAS occur in combination with PFHxS when PFHxS concentrations were otherwise below the HI in isolation (*i.e.,* <9.0 ppt) then the quantified costs underestimate the impacts of the proposed rule. As such, EPA conducted a semi-quantitative analysis of the anticipated incremental costs associated with regulating HFPO–DA, PFNA, and PFBS (for additional detail, please see USEPA (2023i)).

Table 70 provides a summary of the likely impact of nonquantifiable benefit-cost categories. In each case, EPA notes the potential direction of the impact on costs and/or benefits. For example, benefits are underestimated if the PFOA and PFOS reductions result in avoided adverse health outcomes that cannot be quantified and valued. Sections 5.7 and 6.8 of the Economic Analysis identify the key methodological limitations and the potential effect on the cost or benefit estimates, respectively. Additionally, Table 71 summarizes benefits and costs that are quantified and nonquantifiable under the proposed rule.

TABLE 70—POTENTIAL IMPACT OF NONQUANTIFIABLE BENEFITS (B) AND COSTS (C)

Source	(Proposed option)	Option 1a	Option 1b	Option 1c
Nonquantifiable PFOA and PFOS health endpoints.	B: underestimate	B: underestimate	B: underestimate	B: underestimate.
Limitations with available occurrence data for HFPO–DA, PFNA, and PFBS.	C: underestimate	n/a	n/a	n/a.
Nonquantifiable HI (HFPO–DA, PFNA, PFHxS and PFBS) health endpoints.	B: underestimate	n/a	n/a	n/a.
Limitations with available occurrence data for additional PFAS compounds.	B+C: underestimate ...	B+C: underestimate ...	B+C: underestimate ...	B+C: underestimate.
Removal of co-occurring non-PFAS contaminants.	B+C: underestimate ...	B+C: underestimate ...	B+C: underestimate ...	B+C: underestimate.
POU not in compliance forecast	C: overestimate	C: overestimate	C: overestimate	C: overestimate.
Unknown future hazardous waste management requirements for PFAS (including HI).	C: underestimate	C: underestimate	C: underestimate	C: underestimate.

TABLE 71—SUMMARY OF QUANTIFIED AND NONQUANTIFIED BENEFITS AND COSTS

Category	Quantified	Non-quantified	Methods (economic analysis report section where analysis is detailed)
Costs:			
PWS treatment costs [1]	X		Section 5.3.1.
PWS sampling costs	X		Section 5.3.2.2.
PWS implementation and administration costs	X		Section 5.3.2.1.
Primacy agency rule implementation and administration costs	X		Section 5.3.2.
Hazardous waste disposal for treatment media		X	Section 5.6.
POU not in compliance forecast		X	Section 5.6.
Benefits:			
PFOA and PFOS birth weight effects	X		Section 6.4.
PFOA and PFOS cardiovascular effects	X		Section 6.5.
PFOA and PFOS RCC	X		Section 6.6.
Health effects associated with disinfection byproducts	X		Section 6.7.
Other PFOA and PFOS health effects		X	Section 6.2.2.2.
Health effects associated with HI compounds (HFPO–DA, PFNA, PFBS, PFHxS).		X	Section 6.2.
Health effects associated with other PFAS		X	Section 6.2.

Notes:
[1] Due to occurrence data limitations, EPA quantified the national treatment and monitoring costs associated with the HI for PFHxS only and has not quantified the national cost impacts associated with HI exceedances resulting from PFNA, PFBS, and HFPO–DA.

I. Quantified Uncertainties in the Economic Analysis

EPA characterized sources of uncertainty in its estimates of costs expected to result from the proposed PFAS NPDWR. EPA conducted Monte-Carlo based uncertainty analysis as part of SafeWater MCBC. With respect to the cost analysis, EPA modeled the sources of uncertainty in Table 72.

TABLE 72—QUANTIFIED SOURCES OF UNCERTAINTY IN COST ESTIMATES

Source	Description of uncertainty
TOC concentration	The TOC value assigned to each system is from a distribution derived from the SYR4 ICR database (see Section 5.3.1.1 in Economic Analysis).
Compliance technology unit cost curve selection.	Cost curve selection varies with baseline PFAS concentrations and also includes a random selection from a distribution across feasible technologies (see Section 5.3.1.2 in Economic Analysis), and random selection from a triangular distribution of low-, mid-, and high-cost equipment (25%, 50%, and 25%, respectively).

For each iteration, SafeWater MCBC assigned new values to the four sources of modeled uncertainty as described in Table 72, and then calculated costs for each of the model PWSs. This was repeated 4,000 times to reach an effective sample size for each parameter. At the end of the 4,000 iterations, SafeWater MCBC outputs the expected value as well as the 90% confidence interval for each cost metric (*i.e.,* bounded by the 5th and 95th percentile estimates for each cost component). Detailed information on the data used to model uncertainty is provided in Appendix L to USEPA (2023i).

Additionally, EPA characterized sources of uncertainty in its analysis of potential benefits resulting from changes in PFAS levels in drinking water. The analysis reports uncertainty bounds for benefits estimated in each health endpoint category modeled for the proposed rule. Each lower (upper) bound value is the 5th (95th) percentile of the category-specific benefits estimate distribution represented by 4,000 Monte Carlo draws.

Table 73 provides an overview of the specific sources of uncertainty that EPA quantified in the benefits analysis. In addition to these sources of uncertainty, reported uncertainty bounds also reflect the following upstream sources of uncertainty: baseline PFAS occurrence, affected population size and demographic composition, and the magnitude of PFAS concentration reductions. These analysis-specific sources of uncertainty are further described in Appendix L to USEPA (2023i).

TABLE 73—QUANTIFIED SOURCES OF UNCERTAINTY IN BENEFITS ESTIMATES

Source	Description of uncertainty
Health effect-serum PFAS slope factors.	The slope factors that express the effects of serum PFOA and serum PFOS on health outcomes (birth weight, CVD,[1] and RCC) are based either on EPA meta-analyses or high-quality studies that provide a central estimate and a confidence interval for the slope factors. EPA assumed that the slope factors would have a normal distribution within their range.
RCC risk reduction cap	EPA implemented a cap on the cumulative RCC risk reductions due to reductions in serum PFOA based on the population attributable fraction (PAF) estimates for a range of cancers and environmental contaminants. This parameter is treated as uncertain; its uncertainty is characterized by a log-uniform distribution with a minimum set at the smallest PAF estimate identified in the literature and a maximum set at the largest PAF estimate identified in the literature. The central estimate for the PAF is the mean of this log-uniform distribution.

Note:
[1] The slope factors contributing to the CVD benefits analysis include the relationship between total cholesterol and PFOA and PFOS, the relationship between HDLC and PFOA and PFOS, and the relationship between blood pressure and PFOS.

J. Cost-Benefit Determination

When proposing an NPDWR, the Administrator shall publish a determination as to whether the benefits of the MCL justify, or do not justify, the costs based on the analysis conducted under paragraph 1412(b)(3)(C). With this proposed rule, the Administrator has determined that the quantified and nonquantifiable benefits of the proposed PFAS NPDWR justify the costs.

Sections XIII.A to XIII.I of this preamble summarize the results of this proposed rule analysis. As indicated in section XIII.H of this preamble, EPA discounted the estimated monetized cost and benefit values using both 3 and 7 percent discount rates. In Federal regulatory analyses, EPA follows OMB Circular A4 (OMB, 2003) guidance which recommends using both 3 percent and 7 percent is intended to account for the different streams of monetized benefits and costs affected by regulation. The 7 percent discount rate represents the estimated rate of return on capital in the U.S. economy, to reflect the opportunity cost of capital when ''the main effect of a regulation is to displace or alter the use of capital in the private sector.'' Regulatory effects, however, can fall on both capital and private consumption.[10] In 2003, Circular A–4 estimated the rate appropriate for discounting consumption effects at 3 percent. The estimated monetized costs and benefits of this rulemaking result in expected annual net benefits (total monetized annual benefits minus total monetized annual costs) of $461.21 million at a 3 percent discount rate and −$296.50 at a 7 percent discount rate. There are a variety of considerations with respect to the capital displacement in this particular proposal. For example, a meaningful number of PWSs may not be managed as profit-maximizing private sector investments, which could impact the degree to which the rate of return on the use of capital in the private sector applies to PWS costs. Federal funding is expected to defray many such PWS

[10] Private consumption is the consumption of goods and services by households for the direct satisfaction of individual needs (rather than for investment).

costs; [11] where that occurs, such costs are transferred to the government. Additionally, to the extent that the benefits extend over a long time period into the future, including to future generations, Circular A–4 advises agencies to consider conducting sensitivity analyses using lower discount rates. Regardless, the impacts in this rulemaking are such that costs are expected to occur in the nearer term, and in particular that larger one-time capital investments are expected to occur in the near term; and public health benefits are expected to occur over the much longer term. Discounting across an appropriate range of rates can help explore how sensitive net benefits are to assumptions about whether effects fall more to capital or more to consumption.

EPA has followed Circular A–4's default recommendations to use 3 and 7 percent rates to represent the range of potential impacts accounting for diversity in stakeholders' time preferences. The Agency views the 3 to 7 percent range of costs and benefits as characterizing a significant portion of the uncertainty in the discount rate and views the quantified endpoint values as demonstrating a range of monetized costs and benefits which encompass a significant portion of the uncertainty associated with discount rates. Material unquantified benefits expected as a result of this proposed rulemaking are discussed in greater detail later in this section.

The quantified analysis is limited in its characterization of uncertainty. In Section XIII.H, Table 66 of this preamble, EPA provides 5th and 95th percentile values associated with the 3 and 7 percent discounted expected values for net benefits. These values represent the quantified, or modeled, potential range in the expected net benefit values associated with the variability in system characteristics and the uncertainty resulting from the following variables; the baseline PFAS occurrence; the affected population size; the compliance technology unit cost curves, which are selected as a function of baseline PFAS concentrations and population size, the distribution of feasible treatment technologies, and the three alternative levels of treatment capital costs; the concentration of TOC in a system's source water which impacts GAC O&M costs; the demographic composition of the systems population; the magnitude of PFAS concentration reductions; the health effect-serum PFOA and PFOS slope factors that quantify the relationship between changes in PFAS serum level and health outcomes for birth weight, CVD, and RCC; and the cap placed on the cumulative RCC risk reductions due to reductions in serum PFOA. These modeled sources of uncertainty are discussed in more detail in section XIII.I of this preamble. What the quantified 5th and 95th percentile values do not include are a number of factors which impact both costs and benefits but for which the Agency did not have sufficient data to include in the quantification of uncertainty. The factors influencing the proposed rule cost estimates that are not quantified in the uncertainty analysis are detailed in section XIII.C.j and Table 41 of this preamble. These uncertainty sources include: the specific design and operating assumptions used in developing treatment unit cost; the use of national average costs that may differ from the geographic distribution of affected systems; the possible future deviation from the compliance technology forecast; and the degree to which actual TOC source water values differ from EPA's estimated distribution. EPA has no information to indicate a directional influence of the estimated costs with regard to these uncertainty sources. To the degree that uncertainty exists across the remaining factors it would most likely influence the estimated 5th and 95th percentile range and not significantly impact the expected value estimate of costs. Section XIII.D and Table 60, of this preamble, discuss the sources of uncertainty affecting the estimated benefits not captured in the estimated 5th and 95th reported values. The modeled values do not capture the uncertainty in: the exposure that results from daily population changes at NTNCWSs or routine population shifting between PWSs, for example spending working hours at a NTNCWS or CWS and home hours at a different CWS; the exposure-response functions used in benefits analyses assume that the effects of serum PFOA/PFOS on the health outcomes considered are independent, additive, and that there are no threshold serum concentrations below which effects do not occur; the distribution of population by size and demographics across entry points within modeled systems and future population size and demographic changes; and the Value of Statistical Life reference value or income elasticity used to update the VSL. Given information available to the Agency four of the listed uncertainty sources would not affect the benefits expected value but the dispersion around that estimate. They are the unmodeled movements of populations between PWS which potentially differing PFAS concentrations; the independence and additivity assumptions with regard to the effects of serum PFOA/PFOS on the health outcomes; the uncertainty in the population and demographic distributions among entry points within individual systems; and the VSL value and the income elasticity measures. Two of the areas of uncertainty not captured in the analysis would tend to indicate that the quantified benefits numbers are overestimates. First, the data available to EPA with regard to population size at NTNCWs while likely capturing peaks in populations utilizing the systems does not account for the variation in use and population and would tend to overestimate the exposed population. The second uncertainty, which definitionally would indicate overestimates in the quantified benefits values is the assumption that there are no threshold serum concentrations below which health effects do not occur. One factor not accounted for in the quantified analysis associated with the underestimation of benefits is the impact of general population growth over the extended period of analysis.

In addition to the quantified cost and benefit expected values, the modeled uncertainty associated within the 5th and 95th percentile values, and the unmodeled uncertainty associated with a number of factors listed above, there are also significant nonquantifiable costs and benefits which are important to the overall weighing of costs and benefits. Table 70 provides a summary of these nonquantifiable cost and benefit categories along with an indication of the directional impact each category would have on total costs and benefit. Tables 41 and 60 also provide additional information on a number of these nonquantifiable categories.

On the nonquantifiable costs side of the equation EPA had insufficient nationally representative data to precisely characterize occurrence of HFPO–DA, PFNA, and PFBS at the national level and therefore could not include complete treatment costs associated with; the co-occurrence of these PFAS at systems already required to treat as a result of estimated PFOA, PFOS, or PFHxS levels, which would shorten the filtration media life and therefore increase operation costs; and the occurrence of HFPO–DA, PFNA,

[11] As noted above in this preamble, ''Infrastructure Investment and Jobs Act, also referred to as the Bipartisan Infrastructure Law (BIL), invests over $11.7 billion in the Drinking Water State Revolving Fund (SRF); $4 billion to the Drinking Water SRF for Emerging Contaminants; and $5 billion to Small, Underserved, and Disadvantaged Communities Grants.''

and/or PFBS at levels high enough to cause systems to exceed the HI and have to install PFAS treatment. EPA expects that the quantified national costs are marginally underestimated as a result of this lack of sufficient nationally representative occurrence data for purposes of model integration. In an effort to better understand the costs associated with treatment of potentially co-occurring HFPO–DA, PFNA, and PFBS at systems already required to treat and the potential costs resulting from an HI exceedance associated with the same chemicals EPA estimated the potential unit treatment costs for model systems under both scenarios for differing assumed HI PFAS concentrations. The analysis is discussed in section 5.3.1.4 and Appendix N of the Economic Analysis (USEPA, 2023j; USEPA, 2023i). Two additional nonquantifiable cost impacts stemming from insufficient co-occurrence data could also potentially shorten filtration media life and increase operation costs. The co-occurrence of other PFAS and other non-PFAS contaminants not regulated in the proposed rule could both increase costs to the extent that they reduce media life. EPA did not include POU treatment in the compliance technology forecast because current POU units are not certified to remove PFAS to the standards required in the proposed rule. Once certified this technology may be a low-cost treatment alternative for some subset of small systems. Not including POU treatment in this analysis has resulted in a likely overestimate of cost values. Appendix N of the Economic Analysis (USEPA, 2023j; USEPA, 2023i) contains a sensitivity analysis that estimates there may be a national annual costs of $30 to $61 million, discounted at 3 and 7 percent, respectively, which would accrue to systems if the waste filtration media from GAC and IX were handled as hazardous waste. This sensitivity analysis includes only disposal costs and does not consider other potential environmental costs associated with the disposal of the waste filtration media.

There are significant nonquantifiable sources of benefits that were not captured in the quantified benefits estimated for the proposed rule. While EPA was able to monetize some of the PFOA and PFOS benefits related to CVD, infant birthweight, and RCC effects, the Agency was unable to quantify additional negative health impacts. EPA did not quantify PFOA and PFOS benefits related to health endpoints including developmental, cardiovascular, hepatic, immune, endocrine, metabolic, reproductive, musculoskeletal, and other types of carcinogenic effects. See Section XIII.E, of this preamble, for additional information on the nonquantifiable impacts of PFOA and PFOS. Further, the Agency did not quantify any health endpoint benefits associated with the potential reductions in HI PFAS, which include PFHxS, HFPO–DA, PFNA, and PFBS, or other co-occurring non-regulated PFAS which would be removed by the installation of required filtration technology at those systems with PFOA, PFOS, or HI exceedances. The nonquantifiable benefits impact categories associated with PFHxS, HFPO–DA, and PFBS include developmental, cardiovascular, immune, hepatic, endocrine, metabolic, reproductive, musculoskeletal, and carcinogenic effects. In addition, EPA did not quantify the potential developmental, cardiovascular, immune, hepatic, endocrine, metabolic, reproductive, musculoskeletal, and carcinogenic impacts related to the removal of other co-occuring non-regulated PFAS. See Section XIII.F, of this preamble, for additional information on the nonquantifiable impacts of PFHxS, HFPO–DA, PFNA, and PFBS and other non-regulated co-occurring PFAS.

The treatment technologies installed to remove PFAS can also remove numerous other non-PFAS drinking water contaminants which have negative health impacts including additional regulated and unregulated DBPs (the quantified benefits assessment does estimate benefits associated with THM4), heavy metals, organic contaminants, and pesticides, among others. The removal of these co-occurring non-PFAS contaminants could have significant positive health benefits. In total these nonquantifiable benefits are anticipated to be significant and are discussed qualitatively in Section 6.2 of the Economic Analysis (USEPA, 2023j).

To fully weigh the costs and benefits of the action the Agency considered the totality of the monetized values, the potential impacts of the unquantified uncertainties described above, and the nonquantifiable costs and benefits. The Administrator has determined that the benefits of this proposed regulation justify the costs.

XIV. Request for Comment on Proposed Rule

The Agency is requesting comment on this proposed NPDWR for PFAS. In the proposal, the Agency highlighted numerous areas where specific public comment will be helpful for EPA in developing a final rule. EPA specifically requests comment on the following topics within each section of this preamble.

Section III—Regulatory Determinations for Additional PFAS

- EPA requests comment on its preliminary regulatory determination for PFHxS and its evaluation of the statutory criteria that supports the finding. EPA also requests comment on if there are additional data or studies EPA should consider that support or do not support the Agency's preliminary regulatory determination for PFHxS, including additional health information and occurrence data.
- EPA requests comment on its preliminary regulatory determination for HFPO–DA and its evaluation of the statutory criteria that supports the finding. EPA also requests comment on if there are additional data or studies EPA should consider that support or do not support the Agency's preliminary regulatory determination for HFPO–DA, including additional health information and occurrence data.
- EPA requests comment on its preliminary regulatory determination for PFNA and its evaluation of the statutory criteria that supports the finding. EPA also requests comment on if there are additional data or studies EPA should consider that support or do not support the Agency's preliminary regulatory determination for PFNA, including additional health information and occurrence data.
- EPA requests comment on its preliminary regulatory determination for PFBS and its evaluation of the statutory criteria that supports the finding. EPA also requests comment on if there are additional data or studies EPA should consider that support or do not support the Agency's preliminary regulatory determination for PFBS, including additional health information and occurrence data.
- EPA requests comment on whether there are other peer-reviewed health or toxicity assessments for other PFAS the Agency should consider as a part of this action.
- EPA requests comment on its evaluation that regulation of PFHxS, HFPO–DA, PFNA, PFBS, and their mixtures, in addition to PFOA and PFOS, will provide protection from PFAS that will not be regulated under this proposed rule.

Section V—Maximum Contaminant Level Goal

- EPA requests comment on the derivation of the proposed MCLG for PFOA and its determination that PFOA

is *Likely to be Carcinogenic to Humans* and whether the proposed MCLG is set at the level at which there are no adverse effects to the health of persons and which provides an adequate margin of safety. EPA is also seeking comment on its assessment of the noncancer effects associated with exposure to PFOA and the toxicity values described in the support document on the proposed MCLG for PFOA.

- EPA requests comment on the derivation of the proposed MCLG for PFOS, its determination that PFOS is *Likely to be Carcinogenic to Humans* and whether the proposed MCLG is set at the level at which there are no adverse effects to the health of persons and which provides an adequate margin of safety. EPA is also seeking comment on its assessment of the noncancer effects associated with exposure to PFOS and the toxicity values described in the support document on the proposed MCLG for PFOS.
- EPA requests comment on the general HI approach for the mixture of four PFAS.
- EPA requests comment on the merits and drawbacks of the target-specific HI or RPF approach.
- EPA requests comment on significant figure use when calculating both the HI MCLG and the MCL. EPA has set the HI MCLG and MCL using two significant figures (*i.e.,* 1.0). EPA requests comment on the proposed use of two significant figures for the MCLG when considering underlying health information and for the MCL when considering the precision of the analytical methods.
- EPA requests comment on the derivation of the HBWCs for each of the four PFAS considered as part of the HI.
- EPA requests comment on whether the HBWCs should instead be proposed as stand-alone MCLGs in addition to or in lieu of the mixture MCLGs.

Section VI—Maximum Contaminant Level

- EPA requests comment on its proposed determination to set MCLs at 4.0 ppt for PFOA and PFOS and whether 4.0 ppt is the lowest PQL that can be achieved by laboratories nationwide.
- EPA seeks comment on its PFOA and PFOS evaluation of feasibility for the proposal, including analytical measurement and treatment capability, as well as reasonable costs, as defined by SDWA.
- EPA seeks comment on its evaluation of feasibility for the proposed HI MCL finding, including analytical measurement and treatment capability, as well as reasonable costs, as defined by SDWA.
- EPA requests comment on implementation challenges and considerations for setting the MCL at the PQLs for PFOA and PFOS, including on the costs and benefits related to this approach.
- EPA requests comment on the underlying assumptions that sufficient laboratory capacity will be available with the proposed MCLs; that demand will be sufficiently distributed during rule implementation to allow for laboratory capacity; and on the cost estimates related to these assumptions.
- EPA requests comment on its proposal of using an HI approach for PFHxS, HFPO–DA, PFNA, and PFBS, including whether it can be clearly implemented and achieves the goal of protecting against dose additive noncancer health effects.
- EPA requests comment on its proposed decision to establish stand-alone MCLs for PFOA and PFOS in lieu of including them in the HI approach.
- EPA requests comment on whether establishing a traditional MCLG and MCL for PFHxS, HFPO–DA, PFNA, and PFBS instead of, or in addition to, the HI approach would change public health protection, improve clarity of the rule, or change costs.

Section VII—Occurrence

- EPA requests comment on the number of systems estimated to solely exceed the HI (but not the PFOA or PFOS MCLs) according to the approach outlined in USEPA (2023e).

Section IX—Monitoring and Compliance Requirements

- EPA requests comment on the proposed monitoring flexibility for groundwater systems serving 10,000 or fewer to only collect two samples at each EPTDS to satisfy initial monitoring requirements.
- EPA requests comment on monitoring-related flexibilities that should be considered to further reduce burden while also maintaining public health protection including a rule trigger level at different values than the currently proposed values of 1.3 ppt for PFOA and PFOS and 0.33 for the HI PFAS (PFHxS, HFPO–DA, PFNA, and PFBS), specifically alternative values of 2.0 ppt for PFOA and PFOS and 0.50 for the HI PFAS. EPA also requests comment other monitoring flexibilities identified by commenters.
- EPA requests comment on the proposed allowance of a water system to potentially have each EPTDS on a different compliance monitoring schedule based on specific entry point sampling results (*i.e.,* some EPTDS being sampled quarterly and other EPTDS sampled only once or twice during each three-year compliance period), or if compliance monitoring frequency should be consistent across all of the system's sampling points.
- EPA requests comments on whether water systems should be permitted to apply to the primacy agency for monitoring waivers. Specifically, EPA is requesting comment on the allowance of monitoring waivers of up to nine years if after at least one year of sampling results are below the proposed rule trigger level. Similarly, EPA also requests comment on whether allowance of monitoring waivers of up to nine years should be permitted based on previously acquired monitoring data results that are below the proposed rule trigger level. Additionally, EPA is also requesting comment on the identification of possible alternatives to traditional vulnerability assessments that should be considered to identify systems as low risk and potentially eligible for monitoring waivers.
- EPA requests comment on if all water systems, regardless of system size, be allowed to collect and analyze one sample per three-year compliance period if the system does not detect regulated PFAS in their system at or above the rule trigger level.
- EPA requests comment on its proposal to allow the use of previously acquired monitoring data to satisfy initial monitoring requirements including the data collection timeframe requirements and if other QA requirements should be considered.
- EPA requests comment on whether EPA should consider an alternative approach to what is currently proposed when calculating compliance with proposed MCLs. Specifically, in the case where a regulated PFAS is detected but below its proposed PQL, rather than using zero for the measurement value of the specific PFAS in the running annual average compliance calculation, that the proposed rule trigger levels (1.3 ppt for PFOA and PFOS and 0.33 of each of the HI PFAS PQLs (*i.e.,* PFHxS=1.0, HFPO–DA=1.7, PFNA=1.3, and PFBS=1.0)) be used as the values in calculating the running annual average for compliance purposes.
- EPA requests comment on other monitoring related considerations including laboratory capacity and QA/QC of drinking water sampling.
- EPA seeks comment on the Agency's proposed initial monitoring timeframe, particularly for NTNCWS or all systems serving 3,300 or fewer.

Section X—Safe Drinking Water Right to Know

- EPA requests comment on its proposal to designate violations of the proposed MCLs as Tier 2.
- EPA requests comment on what may be needed for water systems to effectively communicate information about the PFAS NPDWR to the public.

Section XI—Treatment Technologies

- EPA requests comment on whether PWSs can feasibly treat to 4.0 ppt or below.
- EPA requests additional information on PFAS removal treatment technologies not identified in the proposed rule that have been shown to reduce levels of PFAS to the proposed regulatory standard.
- EPA requests comment on the co-removal of the HI chemicals (PFHxS, PFBS, PFNA, and HFPO–DA) when GAC, IX, or RO are used in the treatment of PFOA and/or PFOS.
- EPA requests comment on whether there are additional technologies which are viable for PFAS removal to the proposed MCLs as well as any additional costs which may be associated with non-treatment options such as water rights procurement.
- EPA estimates GAC treatment will be sufficiently available to support cost-effective compliance with this proposed regulation, and requests comment on whether additional guidance on applicable circumstances for GAC treatment is needed.
- EPA is seeking comment on the benefits from using treatment technologies (such as reverse osmosis and GAC) that have been demonstrated to co-remove other types of contaminants found in drinking water and whether employing these treatment technologies are sound strategies to address PFAS and other regulated or unregulated contaminants that may co-occur in drinking water.
- EPA requests comment on the estimates for disposing of drinking water treatment residuals or regenerating drinking water treatment media including assumptions related to the transport distance to disposal sites and other costs that arise out of disposal of PFAS contaminated drinking water treatment residuals.
- EPA requests comment on the availability of facilities to dispose of or regenerate drinking water treatment media that contains PFAS. EPA requests comment on whether there will be sufficient capacity to address the increased demand for disposal of drinking water treatment residuals or to regenerate media for reuse by drinking water treatment facilities.
- EPA requests comment on the impacts that the disposal of PFAS contaminated treatment residuals may have in communities adjacent to the disposal facilities.
- EPA requests comment on the type of assistance that would help small public water systems identify laboratories that can perform the required monitoring, evaluate treatment technologies and determine the most appropriate way to dispose of PFAS contaminated residuals and waste the systems may generate when implementing the rule.

Section XII—Rule Implementation and Enforcement

- EPA is seeking comment as to whether there are specific conditions that should be mandated for systems to be eligible for exemptions under 1416 to ensure that they are only used in rare circumstances where there are no other viable alternatives and what those conditions would be.

Section XIII—HRRCA

- EPA requests comment on all components of the HRRCA for the proposed NPDWR.
- In the Economic Analysis, EPA presented estimated costs and benefits of regulatory alternatives for PFOA and PFOS if setting MCLs at 5.0 ppt and 10.0 ppt. EPA is requesting comment on its evaluation of these alternatives within the Economic Analysis.
- EPA requests comment on the methodology used to estimate national costs for the proposed rule and regulatory alternatives. EPA's cost analysis can be found in Chapter 5 of the Economic Analysis.
- EPA is requesting comment on the WBS models, including the range of component levels assumed in the input to the models, and the range of cost estimates for GAC, IX, and centralized RO.
- EPA requests comment on Table 26 which provides the initial treatment technology compliance forecast, presented in percentages of systems adopting GAC, PFAS-selective IX, centralized RO, system interconnection, and use new wells across system design flows and TOC levels. This information is used in EPA's cost and benefit modeling. Please also comment on the potential for point-of-use devices, including those using RO or activated carbon as a compliance option.
- EPA requests comment on the cost of treatment when additional co-occurring but not targeted PFAS chemicals are found in source water.
- EPA requests comment generally on its estimation of sampling costs. The Agency is also specifically requesting comment on the ability of systems to demonstrate they are reliably and consistently below 1.3 ppt for PFOA and PFOS and 0.33 ppt for PFAS regulated by the HI in order to qualify for reduced monitoring.
- EPA requests comment on the underlying assumptions that, under UCMR 5, individual water systems would be able to request the full release of data from the labs for use in determining their compliance monitoring frequency and that PWSs may be able to use these lab analyses to demonstrate a ''below trigger level'' concentration using the UCMR 5 analyses by following up with the lab for a more detailed results report.
- EPA requests comment on the costs associated with the storage, transportation and underground injection of the brine concentrate residuals from the RO/NF process.
- EPA requests comment on the small system affordability analysis, including both the national affordability determination using EPA's existing 2.5% of MHI methodology and the supplemental analyses using use of alternative metrics (*i.e.,* expenditure margins at 1% of MHI and 2.5% of lowest quintile income). EPA's national small system affordability determination can be found in Section 9.12.1 of the Economic Analysis. EPA's supplementary affordability analyses can be found in Section 9.12.2 of the Economic Analysis.
- EPA requests comment on the discussion of estimated PN costs provided in the proposed rule.
- EPA requests comment on the assumption that exceedances of HI PFAS not included in the national cost analyses (HFPO–DA, PFBS, and PFNA) will not significantly impact overall compliance costs and national costs estimates are, therefore, unlikely to be substantially underestimated.
- EPA requests comments on the approaches we used to estimate each of the health impacts of exposure to the PFAS chemicals covered in this proposed rule, including the transparency of the assumptions we made and the impact of these assumptions on the magnitude of the risks avoided by the proposed regulatory action.
- EPA requests comment on whether factors such as anticipated Federal funding, the structure of PWSs relative to private enterprises, or the nature of the public health benefits should be further explored in the final rule analysis, including as it relates to the estimated range of impacts under the applied discount rates.

Section XV—Statutory and Executive Order Reviews

- EPA requests comment on all aspects of its EJ analysis, particularly its choice of comparison groups to determine potential demographic disparities in anticipated PFAS exposure and its use of thresholds against which to examine anticipated exposures. For more information, please see section XV.J of this preamble.

XV. 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 an economically significant regulatory action that was submitted to the Office of Management and Budget (OMB) for review. Any changes made in response to OMB recommendations have been documented in the docket. EPA prepared an analysis of the potential costs and benefits associated with this action. This analysis, the Economic Analysis (USEPA, 2023j), is available in the docket and is summarized in section XIII of this preamble.

B. Paperwork Reduction Act (PRA)

The information collection activities in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the PRA. The Information Collection Request (ICR) document that EPA prepared has been assigned EPA ICR number 2732.01. You can find a copy of the ICR in the docket for this rule at *https://www.regulations.gov/docket/EPA-HQ-OW-2022-0114,* and it is briefly summarized here.

The monitoring information collected as a result of the proposed rule should allow primacy agencies and EPA to determine appropriate requirements for specific systems and evaluate compliance with the proposed rule. For the first three-year period following rule promulgation, the major information requirements concern primacy agency activities to implement the rule including adopting the NPDWR into state regulations, providing training to state and PWS employees, updating their monitoring data systems, and reviewing system monitoring data and other requests. Compliance actions for drinking water systems (including monitoring, administration, and treatment costs) would not begin until after three years due to the proposed effective date of this rule. More information on these actions is described in Section XII of this preamble and in Chapter 9 from the Economic Analysis of the Proposed PFAS NPDWR (USEPA, 2023j).

The respondents/affected entities are PWSs and primacy agencies. The collection requirements are mandatory under SDWA (42 U.S.C. 300g–7). For the first three years after publication of the rule in the FR, information requirements apply to an average of 38,089 respondents annually, including 38,033 PWSs and 56 primacy agencies. The burden associated with the proposed rule over the three years covered by the ICR is 3.8 million hours, for an average of 1.3 million hours per year. The total costs over the three-year period is $142.6 million, for an average of $47.5 million per year (simple average over three years). The average burden per response (*i.e.,* the amount of time needed for each activity that requires a collection of information) is 6.6 hours for PWSs and 1.1 hours for primacy agencies; the average cost per response is $234.41 for PWSs and $60.89 for primacy agencies. Details on the calculation of the proposed rule information collection burden and costs can be found in the ICR for the proposed rule.

Burden is defined at 5 CFR 1320.3(b) and means the total time, effort, and financial resources required to generate, maintain, retain, 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; 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.

An agency may not conduct or sponsor, and a person is not required to respond to, a collected for information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9.

Submit your comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to EPA using the docket identified at the beginning of this proposed rule. EPA will respond to any ICR-related comments in the final rule. You may also send your ICR-related comments to OMB's Office of Information and Regulatory Affairs using the interface at *www.reginfo.gov/public/do/PRAMain.* Find this particular information collected by selected ''Currently under Review—Open for Public Comments'' or by using the search function. OMB must receive comments no later than May 30, 2023.

C. Regulatory Flexibility Act (RFA)

Pursuant to section 603 of the Regulatory Flexibility Act (RFA), EPA prepared an initial regulatory flexibility analysis (IRFA) that examines the impact of the proposed rule on small entities along with regulatory alternatives that could minimize the impact. The complete IRFA is available in Section 9.3 of the Economic Analysis in the docket and is summarized here.

For purposes of assessing the impacts of this proposed rule on small entities, EPA considered small entities to be water systems serving 10,000 people or fewer. This is the threshold specified by Congress in the 1996 Amendments to SDWA for small water system flexibility provisions. As required by the RFA, EPA proposed using this alternative definition in the FR (USEPA, 1998c), sought public comment, consulted with the Small Business Administration (SBA), and finalized the small water system threshold in the Agency's Consumer Confidence Report Regulation (USEPA, 1998d). As stated in the document, the alternative definition would apply to all future drinking water regulations.

The SDWA is the core statute addressing drinking water at the Federal level. Under the SDWA, EPA sets public health goals and enforceable standards for drinking water quality. As previously described, the proposed PFAS NPDWR requires water systems to minimize certain PFAS in drinking water. EPA is proposing to regulate PFAS in drinking water to improve public health protection by reducing drinking water exposure to PFAS in drinking water.

The proposed rule contains provisions that would affect approximately 62,000 small PWSs. A small PWS serves between 25 and 10,000 people. These water systems include approximately 45,000 CWSs that serve the year-round residents and approximately 17,000 NTNCWSs that serve the same persons over six months per year (*e.g.,* a PWS that is an office park or school). The proposed PFAS NPDWR includes development of legally enforceable regulatory standards

with requirements for monitoring, PN, and treatment or non-treatment options for water systems exceeding the regulatory standard. This proposed rule also include reporting, recordkeeping, and other administrative requirements. States are required to implement operator certification (and recertification) programs per SDWA Section 1419 to ensure operators of CWSs and NTNCWSs, including small water system operators, have the appropriate level of certification.

Under the proposed rule requirements, small CWSs and NTNCWs serving 10,000 or fewer people are required to conduct initial monitoring or demonstrate recent, previously collected monitoring data to determine the level of certain PFAS in their water system. Based on these initial monitoring results, systems will be required to conduct ongoing monitoring at least every three years or as often as four times per year. Systems that exceed the drinking water standard will be required to choose between treatment and non-treatment as the compliance option. Under the proposed rule, EPA estimates that approximately 18,000 small CWSs (40 percent of small CWSs) could incur annual total PFAS NPDWR related costs of more than one percent of revenues, and that approximately 10,000 small CWSs (22 percent of small CWSs) could incur annual total costs of three percent or greater of revenue. See Section 9.3 of the proposed PFAS NPDWR Economic Analysis for more information on the characterization of the impacts under the proposed rule.

As required by section 609 (b) of the RFA, EPA also convened a Small Business Advocacy Review (SBAR) Panel to obtain advice and recommendations from small entity representatives (SERs) that potentially would be subject to the rule's requirements. On May 24, 2022, EPA's Small Business Advocacy Chairperson convened the Panel, which consisted of the Chairperson, the Director of the Standards and Risk Management Division within EPA's Office of Ground Water and Drinking Water, the Administrator of the Office of Information and Regulatory Affairs within OMB, and the Chief Counsel for Advocacy of the SBA. Prior to convening the Panel, EPA conducted outreach with SERs that will potentially be affected by this regulation and solicited comments from them. Additionally, after the Panel was convened, the Panel provided additional information to the SERs and requested their input. In light of the SERs' comments, the Panel considered the regulatory flexibility issues and elements of the IRFA specified by RFA/Small Business Regulatory Enforcement Fairness Act (SBREFA) and developed the findings and discussion summarized in the SBAR report. For example, the SBAR Panel recommended several flexibilities in monitoring requirements for small systems, including the use of existing monitoring data (such as the UCMR 5) for initial monitoring purposes; as well as reduced compliance monitoring requirements specifically for small groundwater systems. EPA is including these flexibilities as a part of the proposed rule requirements. The report includes a number of other observations and recommendations to meet the statutory obligations for achieving small-system compliance through flexible regulatory compliance options. The report was finalized on August 1, 2022 and transmitted to the EPA Administrator for consideration. A copy of the full SBAR Panel Report is available in the rulemaking docket (USEPA, 2022a).

D. Unfunded Mandates Reform Act (UMRA)

This action contains a Federal mandate under the Unfunded Mandates Reform Act (UMRA), 2 U.S.C. 1531–1538 that may result in expenditures of $100 million or more for state, local, and tribal governments, in the aggregate, or the private sector in any one year. Accordingly, EPA has prepared a written statement required under section 202 of UMRA that is included in the docket for this action (see Chapter 9 of the Economic Analysis for the Proposed PFAS NPDWR) and briefly summarized here.

Consistent with UMRA section 205, EPA identified and analyzed a reasonable number of regulatory alternatives to determine the MCL requirement in the proposed rule. Sections VI, IX, X, and XII of this preamble describe the proposed options. See section XIII of this preamble and Chapter 9 of the Economic Analysis for the Proposed PFAS NPDWR (USEPA, 2023j) for alternative options that were considered.

Consistent with the intergovernmental consultation provisions of UMRA section 204, EPA consulted with governmental entities affected by this rule. EPA describes the government-to-government dialogue and comments from state, local, and tribal governments in section XV.E Executive Order 13132: Federalism and section XV.F Executive Order 13175: Consultation and Coordination with Indian Tribal Governments of this document.

Consistent with UMRA section 205, EPA identified and analyzed a reasonable number of regulatory alternatives to determine the regulatory requirements in the proposed PFAS NPDWR. Section VI of this preamble describes the proposed option. See section XIII of this preamble and Section 9.4 in the Economic Analysis of the Proposed PFAS NPDWR (USEPA, 2023j) for alternative options that were considered.

This action may significantly or uniquely affect small governments. EPA consulted with small governments concerning the regulatory requirements that might significantly or uniquely affect them. EPA describes this consultation above in the RFA, section XV.C of this preamble.

E. Executive Order 13132: Federalism

EPA has concluded that this action has federalism implications because it imposes substantial direct compliance costs on state or local governments, and the Federal government will not provide the funds necessary to pay those costs. However, EPA notes that the Federal government will provide a potential source of funds necessary to offset some of those direct compliance costs through the BIL. EPA estimates that the net change in primacy agency related cost for state, local, and tribal governments in the aggregate is estimated to be $8 million (3 percent discount rate) or $9 million (7 percent discount rate).

EPA provides the following federalism summary impact statement. EPA consulted with State and local governments early in the process of developing the proposed action to allow them to provide meaningful and timely input into its development. EPA held a federalism consultation on February 24, 2022. EPA invited the following national organizations representing State and local elected officials to a virtual meeting on February 24, 2022: The National Governors' Association, the National Conference of State Legislatures, the Council of State Governments, the National League of Cities, the U.S. Conference of Mayors, the National Association of Counties, the International City/County Management Association, the National Association of Towns and Townships, the County Executives of America, and the Environmental Council of States. Additionally, EPA invited the Association of State Drinking Water Administrators, the Association of Metropolitan Water Agencies, the National Rural Water Association, the American Water Works Association, the American Public Works Association, the Western Governors' Association, the

Association of State and Territorial Health Officials, the National Association of Country and City Health Officials, and other organizations to participate in the meeting. In addition to input received during the meeting, EPA provided an opportunity to receive written input within 60 days after the initial meeting. A summary report of the views expressed during federalism consultations is available in the Docket (EPA–HQ–OW–2022–0114).

In addition to the federalism consultation, regarding state engagement more specifically, EPA notes there were multiple meetings held by the Association of State Drinking Water Administrators where EPA gathered input from state officials related to the considerations for the development of the proposed rule. EPA utilized this state input to inform this rule proposal.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action has tribal implications, it imposes direct compliance costs on tribal governments, and the Federal government will not provide funds necessary to pay those direct compliance costs. However, EPA notes that the Federal government will provide a potential source of funds necessary to offset some of those direct compliance costs through the BIL.

EPA has identified 998 PWSs serving tribal communities, 84 of which are federally owned. EPA estimates that tribal governments will incur PWS compliance costs of $5 million per year attributable to monitoring, treatment or non-treatment actions to reduce PFAS in drinking water, and administrative costs, and that these estimated impacts will not fall evenly across all tribal systems. The proposed PFAS NPDWR does offer regulatory relief by providing flexibilities for all water systems to potentially utilize pre-existing monitoring data in lieu of initial monitoring requirements and for groundwater CWSs and NTNCWSs serving 10,000 or fewer to reduce initial monitoring from quarterly monitoring during a consecutive 12-month period to only monitoring twice during a consecutive 12-month period. These flexibilities may result in implementation cost savings for many tribal systems since 98 percent of tribal CWSs and 94 percent of NTNCWs serve 10,000 or fewer people.

Accordingly, EPA provides the following Tribal summary impact statement as required by section 5(b) of Executive Order 13175. Consistent with EPA Policy on Consultation and Coordination with Indian Tribes (May 4, 2011), EPA consulted with Tribal officials and their representatives early in the process of developing this proposed regulation to permit them to have meaningful and timely input into its development. EPA conducted consultation with Indian Tribes beginning on February 7, 2022 and ending on April 16, 2022. The consultation included two national webinars with interested tribes on February 23, 2022, and March 8, 2022, where EPA provided proposed rulemaking information and requested input. A total of approximately 35 tribal representatives participated in the two webinars. Updates on the consultation process were provided to the National Tribal Water Council and EPA Region 6's Regional Tribal Operations Committee upon request at regularly scheduled monthly meetings during the consultation process. Additionally, EPA received written comments from the following Tribes and Tribal organizations: Little Traverse Bay Bands of Odawa Indians, Sault Ste. Marie Tribe of Chippewa Indians, and National Tribal Water Council. A summary report of the webinars and views expressed during the consultation is available in the Docket (EPA–HQ–OW–2022–0114).

G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks

This action is subject to Executive Order 13045 because it is an economically significant regulatory action as defined by Executive Order 12866, and EPA believes that the environmental health or safety risk addressed by this action has a disproportionate effect on children. Additionally, the Agency's 2021 Policy on Children's Health (*https://www.epa.gov/children/epas-policy-evaluating-risk-children*) is to protect children from environmental exposures by consistently and explicitly considering early life exposures (from conception, infancy, early childhood and through adolescence) and lifelong health in all human health decisions through identifying and integrating data when conducting risk assessments of children's health. Accordingly, EPA has evaluated the environmental health or safety effects of PFAS found in drinking water on children and estimated the risk reduction and health endpoint impacts to children associated with adoption of treatment or non-treatment options to reduce PFAS in drinking water. The results of these evaluations are contained in the Economic Analysis of the Proposed PFAS NPDWR (USEPA, 2023j) and described in section XIII of this preamble. Copies of the Economic Analysis of the Proposed PFAS NPDWR and supporting information are available in the Docket (EPA–HQ–OW–2022–0114).

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

This action is not a ''significant energy action'' because it is not likely to have a significant adverse effect on the supply, distribution or use of energy. The public and private water systems affected by this action do not, as a rule, generate power. This action does not regulate any aspect of energy distribution as the water systems that are proposed to be regulated by this rule already have electrical service. Finally, EPA has determined that the incremental energy used to implement the identified treatment technologies at drinking water systems in response to the proposed regulatory requirements is minimal. As such, EPA does not anticipate that this rule will have a significant adverse effect on the supply, distribution, or use of energy.

I. National Technology Transfer and Advancement Act of 1995

The proposed rule could involve voluntary consensus standards in that it would require monitoring for PFAS and analysis of the samples obtained from monitoring based on required methods. EPA proposed two analytical methods for the identification and quantification of PFAS in drinking water. EPA methods 533 and 537.1 incorporate QC criteria which allow accurate quantitation of PFAS. Additional information about the analytical methods is available in section VIII of this preamble. EPA has made, and will continue to make, these documents generally available through *www.regulations.gov* and at the U.S. Environmental Protection Agency Drinking Water Docket, William Jefferson Clinton West Building, 1301 Constitution Ave. NW, Room 3334, Washington, DC 20460, call (202) 566–2426.

EPA's monitoring and sampling protocols generally include voluntary consensus standards developed by agencies such as ASTM International, Standard Methods and other such bodies wherever EPA deems these methodologies appropriate for compliance monitoring. EPA welcomes comments on this aspect of the proposed rulemaking and, specifically, invites the public to identify potentially-applicable voluntary consensus standards and to explain why

such standards should be used in this regulation. The Director of the FR approved the voluntary consensus standards incorporated by reference in § 141.23 of the proposed regulatory text as of April 11, 2007.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations or low-income populations, as specified in Executive Order 12898 (USEPA, 1994). The proposed rule is anticipated to increase the level of public health protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority population. Additionally, EPA has determined that the proposed rule is anticipated to mitigate the disproportionate impacts of baseline PFAS exposure. The documentation for this decision, including additional detail on the methodology, results, and conclusions of EPA's EJ analysis, is contained in Chapter 8 of USEPA (2023j) and is available in the public docket for this action.

Consistent with the Agency's Technical Guidance for Assessing Environmental Justice in Regulatory Analysis (USEPA, 2016g), EPA conducted an EJ analysis to assess the demographic distribution of baseline PFAS drinking water exposure and impacts anticipated to result from the proposed PFAS NPDWR. EPA conducted two separate analyses: an EJ exposure analysis using EJScreen, the Agency's Environmental Justice Screening and Mapping Tool (USEPA, 2019e), and an analysis of EPA's proposed regulatory option and alternatives using SafeWater MCBC (detailed in Section XIII of this preamble). EPA's analyses examine EJ impacts on a subset of PWSs across the country, based on availability of PFAS occurrence data and information on PWS' service area boundaries. In EPA's analysis, results for income, race, and ethnicity groups are generally summarized separately due to how underlying American Community Survey (ACS) statistics are aggregated at the census block group level; for more information, please see: *https://www.census.gov/data/developers/data-sets/acs-5year.html* (United States Census Bureau, 2022). Additional information on both analyses can be found in Chapter 8 of USEPA (2023j).

EPA's EJ exposure analysis using EJScreen utilized hypothetical regulatory scenarios, which differ from EPA's proposed option and regulatory alternatives (for additional detail, please see Chapter 8 of USEPA (2023j). EPA's EJ exposure analysis demonstrated that across hypothetical regulatory scenarios evaluated, elevated baseline PFAS drinking water exposures, and thus greater anticipated reductions in exposure, are estimated to occur in communities of color and/or low-income populations. For the exposure analysis, EPA examined individuals served by PWSs with modeled PFAS exposure above baseline concentration thresholds or a specific alternative policy threshold. EPA also summarized population-weighted average concentrations in the baseline as well as reductions that would accrue to each demographic group from hypothetical regulatory scenarios. In this analysis, EPA presents the total affected population as a possible metric of comparison, noting however that each affected demographic group is reflected also within the total affected population. For the purpose of evaluating potential EJ concerns, a commonly used demographic category is ''people of color,'' which includes those who identify as a race other than White and/or as Hispanic. It is possible that EPA understates the magnitude of disproportionate baseline exposure to PFAS for people of color because the total affected population includes some portion of the specific populations of concern. For this reason, EPA included information for non-Hispanic White populations in all tables of Section 8.3 in Chapter 8 of USEPA (2023j). EPA also described differences in potential disproportionate impact when comparison is drawn from population groups of concern to the non-Hispanic White population instead of the total population across all demographic groups. EPA requests comment on all aspects of the EJ analysis, including its choice of comparison groups to help identify potential demographic disparities in anticipated PFAS exposure.

Additionally, EPA's analysis in SafeWater MCBC evaluated the demographic distribution of health benefits and incremental household costs anticipated to result from the proposed PFAS NPDWR. EPA's proposed option and all regulatory alternatives are anticipated to provide benefits across all health endpoint categories for all race/ethnicity groups. Across all health endpoints, communities of color are anticipated to experience the greatest quantified benefits associated with EPA's proposed option.

EPA's analysis in SafeWater MCMC also demonstrated that communities of color are anticipated to bear elevated incremental household costs associated with the rule. Although the incremental household cost differences across race/ethnicity groups are minimal, for communities already facing underlying EJ concerns, the impact of these incremental cost increases are likely to impose a higher cost burden. In general, incremental household costs to all race/ethnicity groups decrease as system size increases, an expected result due to economies of scale. Due to the overlap in vulnerabilities demonstrated by slightly elevated household costs anticipated for particular race/ethnicity groups and consistently elevated household costs for households served by small systems, communities of color served by small systems are anticipated to face compounding burdens. To alleviate potential cost disparities identified by EPA's analysis, there may be an opportunity for some communities to utilize funding from national legislation, including BIL (Public Law 117–58), funds allocated to the Low-Income Household Water Assistance Program (LIHWAP) by the American Rescue Plan (Public Law 117–2), and funding from other sources, to provide financial assistance for addressing emerging contaminants. BIL funding has specific allocations for both disadvantaged and/or small communities and emerging contaminants, including PFAS.

Additionally, on March 2, 2022, and April 5, 2022, EPA held public meetings related to EJ and the development of the proposed NPDWR. The meetings provided an opportunity for EPA to share information and for communities to offer input on EJ considerations related to the development of the proposed rule. During the meeting and in subsequent written comments EPA received public comment on topics including establishing an MCL for PFAS, affordability of PFAS abatement options, limiting industrial discharge of PFAS, and EPA's relationship with community groups. For more information on the public meetings, please refer to the Environmental Justice Considerations for the Development of the Proposed PFAS Drinking Water Regulation Public Meeting Summary for each of the meeting dates in the public docket at *https://www.regulations.gov/docket/EPA-HQ-OW-2022-0114.* Additionally, the written public comments are included within the public docket.

K. Consultations With the Science Advisory Board, National Drinking Water Advisory Council, and the Secretary of Health and Human Services

In accordance with sections 1412(d) and 1412(e) of the SDWA, the Agency consulted with the NDWAC (or the Council); the Secretary of Health and Human Services; and with the EPA SAB.

1. SAB

The SAB PFAS Review Panel met virtually via a video meeting platform on December 16, 2021, and then at three (3) subsequent meetings on January 4, 6 and 7, 2022 to deliberate on the Agency's charge questions. Another virtual meeting was held on May 3, 2022, to discuss their draft report. Oral and written public comments were considered throughout the advisory process. EPA sought guidance from the EPA SAB on how best to consider and interpret life stage information, epidemiological and biomonitoring data, the Agency's physiologically-based pharmacokinetic (PBPK) analyses, and the totality of PFAS health information to derive a MCLG for PFOA and PFOS, combined toxicity framework, and CVD. The documents sent to SAB were EPA's *Proposed Approaches to the Derivation of a Draft Maximum Contaminant Level Goal for Perfluorooctanoic Acid (PFOA) (CASRN 335–67–1) in Drinking Water* (USEPA, 2021e); EPA's *Proposed Approaches to the Derivation of a Draft Maximum Contaminant Level Goal for Perfluorooctane Sulfonic Acid (PFOS) (CASRN 1763–23–1) in Drinking Water* (USEPA, 2021f); EPA's *Framework for Estimating Noncancer Health Risks Associated with Mixtures of Per- and Polyfluoroalkyl Substances (PFAS)* (USEPA, 2023d); and EPA's Analysis of Cardiovascular Disease Risk Reduction as a Result of Reduced PFOA and PFOS Exposure in Drinking Water. On May 3 and July 20, 2022, EPA received input from SAB, summarized in the report, *Review of EPA's Analyses to Support EPA's National Primary Drinking Water Rulemaking for PFAS* (USEPA, 2022a).

In response to EPA's request that the SAB review EPA's four draft documents listed above, the SAB identified subject matter experts to augment the SAB Chemical Assessment Advisory Committee (CAAC) and assembled the SAB PFAS Review Panel to conduct the review.

In general, the SAB recognized the time constraints for completing the rule-making process and was supportive of EPA's efforts to the utilize the latest scientific finding to inform their decisions. The SAB applauded the Agency's efforts to develop new approaches for assessing the risk of PFAS mixtures and the benefits arising from reducing exposure to these chemicals as adopted by EPA in the HI approach in this proposed rule. In general, the SAB agreed with many of the conclusions presented in the assessments, framework, and analysis. The SAB also identified many areas that would benefit from further clarification to enhance their transparency and increase their utility. The SAB provided numerous recommendations which can be found in the SAB's final report (USEPA, 2022a) and some highlights are outlined below.

a. Approaches to the Derivation of Draft MCLGs for PFOA and PFOS

The primary purpose of the Proposed Approaches to the Derivation of Draft MCLGs for PFOA and PFOS (USEPA, 2021e; USEPA, 2021f) was to develop MCLGs based on the best available health effects information for PFOA and PFOS. Each MCLG draft document includes derivation of an updated chronic oral RfD, CSF when relevant data were available, and an RSC for SAB review. The health effects information used to derive these toxicity values and RSC values built upon the information in the 2016 PFOA and PFOS HESDs (USEPA, 2016e; USEPA, 2016f) and Health Advisories (USEPA, 2016a; USEPA, 2016b), respectively. EPA has considered all SAB consensus advice in the development of the proposed values derived in this health effects assessment and subsequently derived MCLGs for the NPDWRs for PFOA and PFOS based on the best available science and EPA guidance and precedent. Please see section IV and V of this preamble for discussions on the process for derivation of the MCLGs and the resulting proposed MCLG values for this proposed action.

The SAB charge questions for the MCLG draft documents addressed the systematic review study identification and inclusion, non-cancer hazard identification, cancer hazard identification and slope factor, toxicokinetic modeling, RfD derivation, and RSC. The complete list of charge questions was included in EPA's documents prepared for the SAB (USEPA, 2022a). The SAB provided numerous specific recommendations to consider alternative approaches, expand the systematic review steps for the health effects assessment, and to develop additional analyses in order to improve the rigor and transparency of EPA's documents. The complete list of SAB consensus advice is described in their final report (USEPA, 2022a).

In general, the SAB agreed with many of the conclusions presented in the assessments, framework, and analyses. The SAB recognized the time constraints for completing the rule-making process and supported EPA's efforts to use the latest scientific information to inform their decisions. The SAB applauded the Agency's efforts to develop new approaches for assessing the risk of PFAS mixtures and the benefits arising from reducing exposure to PFAS.

The SAB also identified areas that would benefit from further clarification, expansion, and transparency. The SAB provided written comments and responses to EPA's charge questions (USEPA, 2022a) and the following is a summary of their recommendations and EPA's associated revisions.

Regarding the approaches to deriving MCLG draft documents, the SAB stated that the systematic review methods could be more transparent and complete. Specifically, study identification and criteria for inclusion could be improved. EPA made revisions to the systematic review description and process by updating and expanding the scope of the literature search; providing greater transparency regarding the study inclusion criteria; and adding additional systematic review steps and transparently describing each of these steps in the PFOA and PFOS systematic review protocols.

In the charge questions, EPA sought advice on the noncancer health assessment, and the SAB recommended that EPA separate hazard and dose-response assessment systematic review steps. In response, EPA made revisions to the noncancer hazard identification by expanding systematic review steps beyond study quality evaluation to include evidence integration to address the need to separate hazard identification and dose-response assessment and to ensure consistent hazard decisions; and strengthening rationales for selection of points of departure for the noncancer health outcomes. Additionally, the SAB advised EPA to focus on the health endpoints with the strongest evidence (*i.e.,* liver, immune, serum lipids, development, and cancer).

EPA consulted with the SAB on the cancer risk assessment. On the cancer HI and CSF, the SAB agreed that PFOA was a ''likely'' designation but recommended undertaking and describing a more structured and transparent discussion of the ''weight of evidence'' for both PFOA and PFOS. EPA revised this assessment by following the structured approach in the EPA cancer guidelines (USEPA, 2005) to

develop a weight of evidence narrative for cancer, to consider the data for selecting the cancer classification, evaluating and integrating mechanistic information, and strengthening the rationales for decisions.

For the toxicokinetics model that EPA sought advice on, SAB requested more details on the toxicokinetic modeling including model code and parameters and recommended that EPA consider expressing the RfD in water concentration equivalents to better account for possible life-stage specific differences in exposure rates and toxicokinetics. EPA considered the alternate approach suggested by SAB and made revisions by evaluating alternative toxicokinetic models and further validating the selected model.

EPA also sought advice on the draft RfD derivation. The SAB advised that EPA consider multiple human and animal studies for a variety of endpoints and populations. The SAB also stated a need for stronger and more transparent justification of benchmark response selections and asked EPA to consider adopting a probabilistic framework to calculate risk-specific doses. SAB also recommended that EPA clearly state that RfDs apply to both short-term and chronic exposure. EPA made revisions based on these recommendations by providing additional descriptions and rationale for the selected modeling approaches and conducting new dose-response analyses of additional studies and endpoints.

On the RSC charge question, SAB supported the selection of a 20% RSC, but asked that EPA provide clarity and rationale to support the value. To address this recommendation, EPA added clarifying language related to the RSC determination from EPA guidance (USEPA, 2000c), including the relevance of drinking water exposures and the relationship between the RfD and the RSC.

b. Combined Toxicity Framework

EPA sought advice from an external SAB on the Draft Framework for Estimating Noncancer Health Risks Associated with Mixtures of PFAS document (USEPA, 2023d). The main purpose of this document was to provide a data-driven framework for estimating human health risks associated with oral exposures to mixtures of PFAS. The charge questions for the SAB pertaining to the framework draft documents included whether EPA provided clear support for the assumption of dose additivity, and application of the HI, RPF, and mixtures benchmark dose (BMD) approaches for the evaluation of mixtures of PFAS. The full list of charge questions was included in EPA's documents prepared for the SAB (USEPA, 2022a). The SAB agreed in general with the assumption of dose additivity at the level of common health effect, and application of the HI, RPF and mixture BMD approaches for the evaluation of mixtures of PFAS. The SAB identified instances in which the communication of the analyses and approaches in EPA's framework document could be improved to be clearer.

On EPA's charge question for dose additivity, the SAB agreed with the use of the dose additivity default assumption when evaluating PFAS mixtures that have similar effects and concluded that this assumption was health protective. SAB recommended a more thoroughly and clearly presented list of the uncertainties associated with this approach along with information supporting this approach. EPA made revisions that added clarity to the text by expanding upon the uncertainties and including additional support for using dose additivity.

The SAB panel agreed with the use of the HI as a screening method and decision-making tool. SAB advised that EPA should consider using a menu-based framework to support selection of fit-for-purpose approaches, rather than a tiered approach as described in the draft mixtures document. Based on this feedback, EPA has since reorganized the approach to provide a data-driven ''menu of options'' to remove the tiered logic flow and is adding text to clarify the flexibility in implementation.

EPA sought SAB's opinion on the RPF approach for estimating health risks associated with PFAS mixtures and the SAB panel considered the RPF approach to be a reasonable methodology for assessing mixtures. On the mixture BMD, the SAB agreed that the mixture BMD approach was a reasonable methodology for estimating a mixture-based POD. For both the RPF and mixture BMD approach, SAB recommended that EPA's approach would be strengthened by the use of PODs from animal studies that are based on HEDs rather than administered doses. SAB also requested clarification as to the similarities and differences among the RPF and mixture BMD approaches. SAB also asked EPA to provide additional information on how the proposed mixtures BMD approach would be applied in practice. To address these concerns, EPA made revisions to provide better context and delineation about the applicability of the data across these approaches.

c. CVD Analysis

EPA consulted with the SAB on the Agency's methodology to determine the avoided cases of CVD events (*e.g.,* heart attack, stroke, death from coronary heart disease) associated with reductions in exposure to PFOA and PFOS in drinking water to support a benefits analysis. Specifically, EPA sought SAB comment on the extent to which the approach to estimating reductions in CVD risk is scientifically supported and clearly described. EPA posed specific charge questions on the exposure-response information used in the analysis, the risk model and approach used to estimate the avoided cases of CVD events, and EPA's discussion of limitations and uncertainties of the analysis. Overall, the SAB supported EPA's approach to estimating reductions in CVD risk associated with reductions in exposure to PFOA and PFOS in drinking water. The SAB provided feedback on several areas of the analysis; main points of their feedback and EPA's responses are discussed below.

The SAB noted a discrepancy between the draft CVD document's focus on CVD risk, and the draft MCLG documents' conclusions that the evidence of CVD was not sufficient to form the basis of a RfD. Based on SAB feedback on the draft MCLG document's assessment of CVD related risks, EPA has developed an RfD for total cholesterol (For more information see USEPA, 2023b; USEPA, 2023c). The derivation of an RfD for this endpoint addresses the SAB's concerns about inconsistency between the two documents. The SAB also recommended that EPA ensure that recommendations for the draft MCLG documents relating to evidence identification and synthesis are applied to the CVD endpoint. All studies in EPA's CVD benefits analysis were evaluated for risk of bias, selective reporting, and sensitivity as applied in EPA's *Public Comment Draft—Toxicity Assessment and Proposed MCLGs for PFOA and PFOS in Drinking Water* (USEPA, 2023b; USEPA, 2023c).

The SAB recommended that EPA provide more discussion as to the rationale for selecting CVD for risk reduction analysis and that the approach follows the pathway that links cholesterol to cardiovascular events rather than looking at the reported effects of PFAS directly on CVD. The SAB also recommended that EPA consider risk reduction analyses for other endpoints. In Section 6.5 of the Economic Analysis, EPA discusses the rationale for quantifying CVD and analytical assumptions. Sections 6.4 and

6.6 discusses the Agency's quantified risk reduction analyses for other adverse health effects, including infant birthweight effects and RCC, respectively. In Section 6.2.2 EPA assesses the qualitative benefits of other adverse health effects of PFAS.

Although the SAB generally agreed with the meta-analysis, life table and risk estimation methods, the SAB recommended that EPA provide additional clarity as to the application of these approaches and conduct additional sensitivity analyses. In response to these comments, EPA expanded documentation and conducted additional sensitivity analyses to evaluate the impact of inclusion or exclusion of certain studies in the meta-analyses of exposure-response estimates. Further, EPA expanded documentation and conducted additional sensitivity analyses to assess the effects of using a key single study approach versus the meta-analysis approach to inform the exposure-response estimates. EPA identified two suitable key studies for use in the single study approach. EPA found that the single study approach resulted in increased benefits, and this trend was driven by the larger estimates of PFAS-total cholesterol slope factors and inverse associations in the HDLC effect for one or both contaminants in the key single studies. EPA elected to retain the meta-analysis approach in the benefits analysis because the Agency identified several studies on adults in the general population with large numbers of participants and low risk of bias, and in this case the meta-analytical approach offers an increased statistical power over the single study approach. While the single study approach is common for RfD derivations, the meta-analysis pooled estimate provides a slope factor that represents the average response across a larger number of studies, which is useful in evaluating benefits resulting from changes in CVD risk on a national scale.

The SAB also recommended that EPA evaluate how inclusion of HDLC effects would influence the results and provide further justification for the inclusion or exclusion of HDLC and blood pressure effects. EPA found that, as expected, inclusion of HDLC effects decreases annualized CVD benefits and inclusion of blood pressure effects slightly increases annualized CVD benefits. Because HDLC was shown to have a stronger effect than blood pressure on annualized CVD benefits, inclusion of blood pressure and HDLC effects together decreases annualized CVD benefits. For more information see sensitivity analyses evaluating these effects in Appendix K of the EA. Inclusion of HDLC effects into the national analysis would reduce national benefits estimates but would not change EPA's bottom-line conclusion that the quantifiable and nonquantifiable benefits of the rule justify the quantifiable and nonquantifiable costs. After further examination of the evidence for HDLC and blood pressure effects, EPA elected to include blood pressure effects because the findings from a single high confidence study and several medium confidence studies conducted among the general population provided consistent evidence of an association between PFOS exposure and blood pressure. EPA did not include HDLC effects in the national benefits analysis because available evidence of associations between PFOS exposures and HDLC levels is inconsistent and there is no evidence of an association between PFOA exposures and HDLC levels.

Finally, the SAB noted that while the ASCVD model is a reasonable choice for estimating the probability of first time CVD events, it is not without limitations. The panel recommended that EPA include more discussion of the accuracy of its predictions, particularly for sub-populations. EPA expanded its evaluation of the ASCVD model's limitations, including a comparison of the ASCVD model predictions with race/ethnicity and sex-specific CVD incidence from CDC's public health surveys (See Section 6.5.3.2 and Appendix G of the Economic Analysis for details). Results show that the ASCVD model coefficients for the non-Hispanic Black model are more consistent with data on CVD prevalence and mortality for Hispanic and non-Hispanic other race subpopulations than the ASCVD model coefficients for the non-Hispanic White model.

2. NDWAC

The Agency consulted with NDWAC during the Council's April 19, 2022, virtual meeting. A summary of the NDWAC recommendations is available in the National Drinking Water Advisory Council, Fall 2022 Meeting Summary Report (NDWAC, 2022 *https://www.federalregister.gov/documents/2022/03/29/2022-06576/meeting-of-the-national-drinking-water-advisory-council*) and the docket for this proposed rule. EPA carefully considered NDWAC recommendations during the development of a proposed drinking water rule for PFAS, including PFOA and PFOS.

3. HHS

On September 28, 2022, EPA consulted with the Department of Health and Human Services (HHS). EPA provided information to HHS officials on the draft proposed NPDWR and considered HHS input as part of the interagency review.

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List of Subjects

40 CFR Part 141

Environmental protection, Indians—lands, Intergovernmental relations, National Primary Drinking Water Regulation, PFAS, Monitoring and analytical requirements, Reporting and recordkeeping requirements, Water supply, Incorporation by reference.

40 CFR Part 142

Environmental protection, Administrative practice and procedure, Indians—lands, Intergovernmental relations, National Primary Drinking Water Regulation, PFAS, Monitoring and analytical requirements, Reporting and recordkeeping requirements, Water supply.

Michael S. Regan,

Administrator.

For the reasons stated in the preamble, the Environmental Protection Agency proposes to amend 40 CFR parts 141 and 142 as follows:

PART 141—NATIONAL PRIMARY DRINKING WATER REGULATIONS

■ 1. The authority citation for part 141 continues to read as follows:

Authority: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

■ 2. Amend § 141.2 by adding in alphabetical order definitions for ''Hazard Index (HI)'', ''Hazard Quotient (HQ)'', ''Health-based water concentration (HBWC)'', ''HFPO–DA or GenX chemicals'', ''PFBS'', ''PFHxS'', ''PFNA'', ''PFOA'', and ''PFOS'' to read as follows:

§ 141.2 Definitions.

* * * * *

Hazard index (HI) is the sum of component hazard quotients (HQs), which are calculated by dividing the measured regulated PFAS component contaminant concentration in water (*e.g.,* expressed as ppt or ng/l) by the associated Health-Based Water Concentration (*e.g.,* HBWC expressed as ppt). For PFAS, a mixture HI greater than 1.0 (unitless) is an exceedance of the MCL.

Hazard quotient (HQ) are the ratio of potential exposure to a substance and the level at which no health effects are expected.

Health-based water concentration (HBWC) are levels protective of health effects over a lifetime of exposure, including sensitive populations and life stages.

HFPO–DA or GenX chemicals means Chemical Abstract Service registration number 122499–17–6, chemical formula C6F11O3-, International Union of Pure and Applied Chemistry preferred name 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoate, along with its conjugate acid and any salts, derivatives, isomers or combinations thereof.

* * * * *

PFBS means Chemical Abstract Service registration number 45187–15–3, chemical formula C4F9SO3-, perfluorobutane sulfonate, along with its conjugate acid and any salts, derivatives, isomers or combinations thereof.

PFHxS means Chemical Abstract Service registration number 108427–53–8, chemical formula C6F13SO3-, perfluorohexane sulfonate, along with its conjugate acid and any salts, derivatives, isomers or combinations thereof.

PFNA means Chemical Abstract Service registration number 72007–68–2, chemical formula C9F17O2-, perfluorononanoate, along with its conjugate acid and any salts, derivatives, isomers or combinations thereof.

PFOA means Chemical Abstract Service registration number 45285–51–6, chemical formula C8F15CO2–, perfluorooctanoate, along with its conjugate acid and any salts, derivatives, isomers or combinations thereof.

PFOS means Chemical Abstract Service registration number 45298–90–6, chemical formula C8F17SO3–, perfluorooctanesulfonate, along with its conjugate acid and any salts, derivatives, isomers or combinations thereof.

* * * * *

■ 3. Amend § 141.6 by revising paragraph (a) and adding paragraph (l) to read as follows:

§ 141.6 Effective dates.

(a) Except as provided in paragraphs (b) through (1) of this section the regulations set forth in this part shall take effect on June 24, 1977.

* * * * *

(l) The regulations contained in the revision to §§ 141.50, 141.60, 141.61, 141.154, 141.151 through 141.155; and 141.201 through 141.211 are effective for the purposes of compliance on [DATE THREE YEARS AFTER DATE OF PUBLICATION OF FINAL RULE IN THE **FEDERAL REGISTER**]

■ 4. Amend § 141.28 by revising paragraph (a) to read as follows:

§ 141.28 Certified laboratories.

(a) For the purpose of determining compliance with § 141.21 through 141.27, 141.30, 141.40, 141.74, 141.89, 141.402, and 141.900 through 141.905, samples may be considered only if they have been analyzed by a laboratory certified by the State except that measurements of alkalinity, disinfectant residual, orthophosphate, pH, silica, temperature, and turbidity may be performed by any person acceptable to the State.

* * * * *

■ 5. Amend § 141.50 by adding paragraphs (a)(24) and (25) and in the table in paragraph (b), revising the heading for the second column and adding an entry for ''(34)'' and footnote 1 to read as follows:

§ 141.50 Maximum contaminant level goals for organic contaminants.

(a) * * *

(24) PFOA

(25) PFOS

(b) * * *

Contaminant	MCLG in mg/l (unless otherwise noted)
* * * * * * *	
(34) Hazard Index PFAS (PFNA, HFPO–DA, PFHxS, and PFBS)	1.0 (unitless).[1]

[1] The PFAS Mixture HI MCLG is the sum of component hazard quotients (HQs), which are calculated by dividing the measured component PFAS concentration in water (*e.g.,* expressed as ppt or ng/l) by the corresponding contaminant's Health-Based Water Concentration (*e.g.,* HBWC expressed as ppt). The HBWC for PFHxS is 9.0 ppt; the HBWC for HFPO–DA is 10.0 ppt; the HBWC for PFNA is 10 ppt; the HBWC for PFBS is 2000.0 ppt. A PFAS Mixture HI MCLG greater than 1.0 (unitless) indicates an exceedance of the health protective level and indicates potential human health risk from the PFAS mixture in drinking water. HI MCLG = ([GenXwater]/[10 ppt]) + ([PFBSwater]/[2000 ppt]) + ([PFNAwater]/[10 ppt]]) + ([PFHxSwater]/[9.0 ppt]).

■ 6. Amend § 141.60 by adding paragraph (a)(4) to read as follows:

§ 141.60 Effective dates.

(a) * * *

(4) The effective date for paragraphs (c)(34) through (36) is [DATE OF PUBLICATION OF FINAL RULE IN THE **FEDERAL REGISTER**].

* * * * *

■ 7. Amend § 141.61:

■ a. In the table in paragraph (b) by adding entries for ''45285–51–6'', ''45298–90–6'', and ''108427–53–8; 122499–17–6; 72007–68–2; 45187–15–3'' at the end of the table; and

■ b. In the table in paragraph (c) by revising the heading for the third column, adding entries for ''(34)'', ''(35)'', and ''(36)'' at the end of the table, and adding footnote 1.

The additions read as follows:

§ 141.61 Maximum contaminant levels for organic contaminants.

(b) * * *

BAT FOR ORGANIC CONTAMINANTS IN § 141.61 (a) AND (c)

CAS. No.	Contaminant	GAC	PTA	OX
* *	* * *		*	*
45285–51–6	PFOA	X		
45298–90–6	PFOS	X		
108427–53–8; 122499–17–6; 72007–68–2; 45187–15–3.	Hazard Index PFAS (PFNA, HFPO–DA, PFHxS, and PFBS.	X		

(c) * * *

CAS. No.	Contaminant	MCL (mg/L) (unless otherwise noted)
* * *	* * *	*
(34) 45285–51–6	PFOA	0.0000040.
(35) 45298–90–6	PFOS	0.0000040.
(36) 108427–53–8; 122499–17–6; 72007–68–2; 45187–15–3.	Hazard Index PFAS (PFNA, HFPO–DA, PFHxS, and PFBS.	1.0 (unitless).[1]

[1] The PFAS Mixture HI MCL is the sum of component hazard quotients (HQs), which are calculated by dividing the measured component PFAS concentration in water (*e.g.,* expressed as ppt) by the relevant Health-Based Water Concentration (*e.g.,* HBWC expressed as ppt. The HBWC for PFHxS is 9.0 ppt; the HBWC for HFPO–DA is 10.0 ppt; the HBWC for PFNA is 10.0 ppt the HBWC for PFBS is 2000.0 ppt. A PFAS Mixture HI MCL greater than 1.0 is an MCL violation. HI MCL = ([GenXwater]/[10 ppt]) + ([PFBSwater]/[2000 ppt]) + ([PFNAwater]/[10 ppt]) + ([PFHxSwater]/[9.0 ppt]).

■ 8. Amend § 141.151 by revising paragraph (d) to read as follows:

§ 141.151 Purpose and applicability of this subpart

* * * * *

(d) For the purpose of this subpart, detected means: at or above the levels prescribed by § 141.23(a)(4) for inorganic contaminants, at or above the levels prescribed by § 141.24(f)(7) for the contaminants listed in § 141.61(a), at or above the levels prescribed by § 141.24(h)(18) for the contaminants listed in § 141.61(c), at or above the levels prescribed by § 141.131(b)(2)(iv) for the contaminants or contaminant groups listed in § 141.64, at or above the levels prescribed by § 141.25(c) for radioactive contaminants, and at or above the levels prescribed § 141.902(a)(9) for PFAS listed in § 141.61(c).

* * * * *

■ 9. Amend § 141.154 by adding paragraph (g) to read as follows:

§ 141.154 Required additional health information.

* * * * *

(g) Community water systems that detect any PFAS above the MCL in § 141.61(c), as monitored and calculated under the provisions of subpart Z of this part must include health effects language for PFAS prescribed by appendix A to subpart O of this part.

■ 10. Amend appendix A to subpart O by adding entries for ''PFOA'', ''PFOS'', and ''Hazard Index PFAS (PFHxS, HFPO–DA, PFNA, and PFBS)'' at the end of the table and adding footnote 2 immediately after footnote 1 to read as follows:

Appendix A to Subpart O of Part 141—Regulated Contaminants

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
*	*	*	*	*	*	*
PFOA	0.0000040	1,000,000	4.0 ppt	0	Discharge from manufacturing and industrial chemical facilities, and certain firefighting activities.	Some people who drink water containing PFOA in excess of the MCL could develop immune health effects, fetal growth effects after exposure during pregnancy, certain types of cancers, or an increased risk of cardiovascular disease or liver disease.
PFOS	0.0000040	1,000,000	4.0 ppt	0	Discharge from manufacturing and industrial chemical facilities, and certain firefighting activities.	Some people, including children, who drink water containing PFOS in excess of the MCL could develop immune health effects, fetal growth effects after exposure during pregnancy, certain types of cancers, or an increased risk of cardiovascular disease or liver disease.
Hazard Index PFAS (PFHxS, HFPO–DA, PFNA, and PFBS).	1.0 (unitless)	No conversion.	No conversion.	[2] 1.0	Discharge from manufacturing and industrial chemical facilities, and certain firefighting activities.	Some people who drink water containing PFHxS, HFPO–DA, PFNA, and PFBS in excess of the Hazard Index MCL could develop thyroid, liver, or developmental health effects.
*	*	*	*	*	*	*

[2] Subpart A of § 141.2.

* * * * *

■ 11. Amend appendix A to subpart Q under the Contaminant heading ''D. Synthetic Organic Chemicals (SOCs)'' by adding entries for ''31'', ''32'', and ''33'' in numerical to read as follows:

Appendix A to Subpart Q of Part 141—NPDWR Violations and Other Situations Requiring Public Notice [1]

Contaminant	MCL/MRDL/TT violations [2]		Monitoring & testing procedure violations	
	Tier of public notice required	Citation	Tier of public notice required	Citation
*	*	*	*	*
31	2	141.61(c)	3	141.XX
32	2	141.61(c)	3	141.XX
33	2	141.61(c)	3	141.XX
*	*	*	*	*

* * * * * * *

[1] Violations and other situations not listed in this table (*e.g.,* failure to prepare Consumer Confidence Reports), do not require notice, unless otherwise determined by the primacy agency. Primacy agencies may, at their option, also require a more stringent public notice tier (*e.g.,* Tier 1 instead of Tier 2 or Tier 2 instead of Tier 3) for specific violations and situations listed in this appendix, as authorized under § 141.202(a) and § 141.203(a).

[2] MCL—Maximum contaminant level, MRDL—Maximum residual disinfectant level, TT—Treatment technique.

* * * * *

■ 12. Amend appendix B to subpart Q by adding entries for ''PFOA'', ''PFOS'', and ''Hazard Index PFAS (PFHxS, HFPO–DA, PFNA, and PFBS)'' at the end of the table under new heading ''J. PFAS'' and adding footnote 24 to read as follows:

Appendix B to Subpart Q of Part 141—Standard Health Effects Language for Public Notification

Contaminant	MCLG [1] mg/L	MCL [2] mg/L	Standard health effects language for public notification
* *	*	*	* * *
J. PFAS			
PFOA	0	0.0000040	Some people, including children, who drink water containing PFOA in excess of the MCL could develop immune health effects, fetal growth effects after exposure during pregnancy, certain types of cancers, or an increased risk of cardiovascular disease or liver disease.
PFOS	0	0.0000040	Some people, including children, who drink water containing PFOS in excess of the MCL could develop immune health effects, fetal growth effects after exposure during pregnancy, certain types of cancers, or an increased risk of cardiovascular disease or liver disease.
Hazard Index PFAS (PFHxS, HFPO–DA, PFNA, and PFBS).	1.0 (unitless)	1.0 (unitless) [24]	Some people who drink water containing PFHxS, HFPO–DA, PFNA, and PFBS in excess of the Hazard Index MCL could develop thyroid, liver, or developmental health effects.

[1] MCLG—Maximum contaminant level goal.
[2] MCL—Maximum contaminant level.
* * * * * * *
[24] Subpart A of § 141.2.
* * * * * * *

■ 13. Amend appendix C to subpart Q by adding in alphabetical order the acronyms ''HI'' and ''PFAS'' to read as follows:

Appendix C to Subpart Q of Part 141—List of Acronyms Used in Public Notification Regulation

* * * * *
HI Hazard Index
* * * * *
PFAS Per- and Polyfluoroalkyl Substances
* * * * *

■ 14. Subpart Z is added to read as follows:

Subpart Z—Control of Per- and Polyfluoroalkyl Substances (PFAS)

Sec.
141.900 General requirements.
141.901 Analytical requirements.
141.902 Monitoring requirements.
141.903 Compliance requirements.
141.904 Reporting and recordkeeping requirements.
141.905 Violations.

Subpart Z—Control of Per- and Polyfluoroalkyl Substances (PFAS)

§ 141.900 General requirements.

(a) The requirements of this subpart constitute national primary drinking water regulations. These regulations establish criteria under which control of certain PFAS is required for community water systems (CWS) and non-transient, non-community water systems (NTNCWS). Each CWS and NTNCWS must comply with the maximum contaminant levels for certain PFAS as outlined in this subpart.

(b) Compliance dates.

(c) CWS and NTNCWS, unless otherwise noted, must comply with the requirement of this subpart.

§ 141.901 Analytical requirements.

(a) *General.* (1) Systems must use only the analytical methods specified in this section to demonstrate compliance with the requirement of this subpart.

(2) The following documents are incorporated by reference. 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. Copies may be inspected at EPA's Drinking Water Docket, 1301 Constitution Avenue NW, EPA West, Room 3334, Washington, DC 20460 (Telephone: 202–566–2426); or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.*

(i) EPA method 533: Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry, (December 2019, 815–B–19–020). *https://www.epa.gov/dwanalyticalmethods/method-533-determination-and-polyfluoroalkyl-substances-drinking-water-isotope;*

(ii) Method 537.1: Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) (November 2018, EPA/600/R–18/352). *https://cfpub.epa.gov/si/si_public_record_Report.cfm?dirEntryId=343042&Lab=NERL.*

(b) *PFAS*—(1) *Analytical methods.* Systems must measure regulated PFAS by the methods listed in the following table:

TABLE 1 TO PARAGRAPH (b)(1)

Contaminant	EPA method
Perfluorooctanesulfonic acid (PFOS)	533, 537.1
Perfluorooctanoic acid (PFOA)	533, 537.1
Hazard Index PFAS (PFNA, HFPO–DA, PFHxS, and PFBS)	533, 537.1

(2) *Laboratory certification.* Analyses under this section for regulated PFAS must be conducted by laboratories that have received certification by the State.

(i) Beginning [DATE OF PUBLICATION OF FINAL RULE IN THE **FEDERAL REGISTER**], report quantitative data for concentrations at least as low as the ones listed in the following table for all PFAS samples analyzed for compliance with § 141.902 (Monitoring Requirements).

(ii) [Reserved]

(iii) To receive certification to conduct analyses for the regulated PFAS contaminants, the laboratory must:

(A) Analyze Performance Evaluation (PE) samples that are acceptable to the State at least once during each consecutive 12-month period by each method for which the laboratory desires certification.

(B) Beginning [DATE OF PUBLICATION OF FINAL RULE IN THE **FEDERAL REGISTER**], the laboratory must achieve quantitative results on the PE sample analyses that are within the following acceptance limits:

TABLE 2 TO PARAGRAPH (b)(2)(iii)(B)

Contaminant	Acceptance limits (percent of true value)
Perfluorooctanesulfonic acid (PFOS)	70–130
Perfluorooctanoic acid (PFOA)	70–130
Hazard Index PFAS—PFNA	70–130
Hazard Index PFAS—HFPO–DA	70–130
Hazard Index PFAS—PFHxS	70–130
Hazard Index PFAS—PFBS	70–130

§ 141.XX. Monitoring requirements.

(a) *General requirements.* (1) Systems must take all samples during normal operating conditions at all entry points to the distribution system.

(2) If the system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of representative operating conditions.

(3) Failure to monitor in accordance with the monitoring requirements required under paragraph (b) of this section is a monitoring violation.

(4) If a system fails to collect the required number of samples, compliance will be based on the total number of samples collected.

(5) Systems must only use data collected under the provisions of this subpart to qualify for reduced monitoring.

(6) All new systems that begin operation after, or systems that use a new source of water after, [DATE OF PUBLICATION OF FINAL RULE IN THE **FEDERAL REGISTER**] must demonstrate compliance with the MCLs within a period of time specified by the State. The system must also comply with initial sampling frequencies required by the State to ensure that the system can demonstrate compliance with the MCLs. Routine and increased monitoring frequencies must be conducted in accordance with the requirements in this section.

(7) For purposes of this section, the trigger level is defined as 1.3 ppt for PFOA and PFOS and a Hazard Index of 0.33 for PFAS.

(8) Based on initial monitoring results, for each sampling point at which a contaminant listed in § 141.61(c) is detected at a level greater than or equal to the trigger level, the system must monitor quarterly for all regulated PFAS beginning in the next quarter, in accordance with § 141.902(a).

(9) For purposes of this section, a reportable detection means at or above one-third of the levels described in the table outlined in § 141.903(f)(1)(i)(3).

(b) *Monitoring requirements for PFAS*—(1) *Initial compliance period.* (i) Groundwater CWS and NTNCWS serving greater than 10,000 and all surface water CWS and NTNCWS must take four consecutive quarterly samples for each contaminant listed in § 141.61(c).

(ii) All groundwater CWS and NTNCWS serving 10,000 or fewer shall take two samples for each contaminant listed in 141.61(c) at least ninety days apart within a 12-month period.

(iii) All groundwater under the direct influence (GWUDI) CWS and NTNCWS shall follow the surface water CWS and NTNCWS monitoring schedule based on system size, though a State may require more frequent monitoring on a system-specific basis.

(iv) Systems must monitor at a frequency indicated in the following table:

TABLE 1 TO PARAGRAPH (b)(1)(iv)

Type of system	Minimum monitoring frequency	Sample location
Groundwater CWS and NTNCWS serving greater than 10,000 persons and all surface water CWS and NTNCWS.	Four consecutive quarters of samples per entry point to the distribution system (EPTDS). Samples must be taken at least ninety days apart.	EPTDS.
Groundwater CWS and NTNCWS serving 10,000 or fewer persons.	In a consecutive 12-month period, two samples per each EPTDS. Samples must be acquired at least ninety days apart.	EPTDS.

(v) To satisfy initial compliance period monitoring requirements a State may accept data that has been previously acquired by a water system to count toward the initial monitoring requirements listed in table 1 to paragraph (b)(1)(iv) of this section. Such data may only be used if it was collected in accordance with § 141.40 and that such samples were collected starting on or after January 1, 2023. Data collected between January 1, 2019, and December 31, 2022, may also be used if it is below the rule trigger level of 1.3 ppt for PFOA and PFOS and below an HI of 0.33.

(vi) If systems have multiple years of data, the most recent data must be used. If a system has fewer than the number of samples required for initial monitoring as listed in the table, then all surface water systems, GWUDI systems, and groundwater systems serving greater than 10,000 must collect at least one sample in each quarter of a calendar year that was not acquired, and groundwater systems serving 10,000 or fewer must collect one sample in a different quarter of the calendar year than the one in which the previous sample was acquired. This must be completed by [DATE THREE YEARS AFTER DATE OF PUBLICATION OF FINAL RULE IN THE **FEDERAL REGISTER**].

(2) *Compliance monitoring.* (i) Based on initial monitoring results, or on compliance monitoring results after the initial monitoring period, systems may reduce monitoring at each sampling point at which the rule trigger level was not met or exceeded in accordance with the following table, except as otherwise provided by the State.

TABLE 2 TO PARAGRAPH (b)(2)(i)

If you are a . . .	You may reduce monitoring if your . . .	To this level
CWS and NTNCWS serving more than 3,300 persons.	Averages from initial monitoring period or compliance monitoring running annual averages for PFOA and PFOS are each <1.3 ppt and HI <0.33.	In a consecutive 12-month period, two samples per each EPTDS during each three-year compliance period. Samples must be acquired at least ninety days apart.
CWS and NTNCWS serving 3,300 or fewer persons.	Averages from initial monitoring period or compliance monitoring running annual averages for PFOA and PFOS are each <1.3 ppt and HI <0.33.	One sample at each EPTDS during each three-year compliance period for a total of one sample per three-year compliance period.

(ii) If a system is monitoring less frequently than quarterly and if a contaminant listed in § 141.61(c) is detected at a level exceeding the trigger level of 1.3 ppt for either PFOS or PFOA, or a Hazard Index of 0.33 for PFNA, PFHxS, HFPO–DA, and PFBS in any sample, then the system must monitor quarterly beginning in the next quarter at each sampling point which resulted in a detection in accordance with § 141.902(a). The triggering sample must be used as the first quarter of monitoring for the running annual average calculation.

(iii) Systems that are at or exceed the trigger level of 1.3 ppt for either PFOS or PFOA, or a Hazard Index of 0.33 for PFNA, PFHxS, HFPO–DA, and PFBS must conduct quarterly monitoring for regulated PFAS for at least four consecutive quarters. If after four consecutive quarters of quarterly monitoring, the running annual average is less than the trigger level, then the State may determine that the system is reliably and consistently below the MCL for regulated PFAS and allow the system to return to reduced monitoring as shown in table 2 to paragraph (b)(2)(i) of this section.

(iv) The State may require a confirmation sample for any sampling result. If a confirmation sample is required by the State, the result must be averaged with the first sampling result and the average must be used for the compliance determination as specified by § 141.903. States may delete results of obvious sampling errors from this calculation.

(v) The State may increase the required monitoring frequency, where necessary, to detect variations within the system (*e.g.,* fluctuations in concentration due to seasonal use, changes in water source).

(vi) Each public water system shall monitor at the time designated by the State within each compliance period.

§ 141.903 Compliance requirements.

(a) Compliance with § 141.61(c) shall be determined based on the analytical results obtained at each sampling point. If one sampling point is in violation of an MCL, the system is in violation of the MCL.

(b) For systems monitoring more than once per year, compliance with the MCL is determined by a running annual average at each sampling point.

(c) If a system fails to collect the required number of samples, compliance will be based on the total number of samples collected.

(d) Systems monitoring triennially whose sample result equals or exceeds the trigger level of 1.3 ppt for either PFOS or PFOA, or a Hazard Index of 0.33 for PFNA, PFHxS, HFPO–DA, and PFBS must begin quarterly sampling. If the sample result exceeds an MCL, the system will not be considered in violation of the MCL until it has completed one year of quarterly sampling with the triggering sample used as the first quarter of monitoring for the running annual average calculation.

(e) If any sample result will cause the running annual average to exceed the MCL at any sampling point, the system is out of compliance with the MCL immediately.

(f) Systems must calculate compliance using the following method:

(1) For each PFAS regulated by an individual MCL:

(i) For systems monitoring quarterly, divide the sum of the measured concentrations for each analyte by the number of samples collected for that analyte during the consecutive quarters. If more than one compliance sample for that analyte is available in the quarter, systems must average all the results in a quarter then average the quarterly averages. If the value calculated exceeds the MCL, the system is not in compliance with the MCL requirements.

(ii) For systems monitoring less frequently than quarterly, report the results of each sampling event:

(A) For systems taking one sample during each three-year compliance period, if more than one compliance sample is available systems must average all the results to determine compliance. If the value calculated exceeds the MCL, the system is required to initiate quarterly monitoring with the sampling result used as the first quarter of monitoring for the running annual average calculation.

(B) For systems taking two samples during each three-year compliance period, divide the sum of the measured concentrations for each analyte by the number of samples collected during the three-year compliance period. If more than one compliance sample is available for a quarter, systems must average all of the results of that quarter then average the two quarterly averages. If the value calculated exceeds the MCL, the system is required to initiate quarterly monitoring, with the sample result used as the first quarter of monitoring for the running annual average calculation.

(iii) If a sample result is less than the practical quantitation limit for a regulated PFAS, in accordance with the following table, zero will be used for that analyte to calculate the annual average.

TABLE 1 TO PARAGRAPH (f)(1)(iii)

Contaminant	PQL (ppt)
PFOA	4.0
PFOS	4.0
HFPO–DA	5.0
PFHxS	3.0
PFNA	4.0
PFBS	3.0

(2) For each PFAS regulated under the Hazard Index:

(i) For systems monitoring quarterly, divide observed sample analytical results by the corresponding HBWC listed in § 141.61(c) to obtain a Hazard Quotient for each sampling event at each EPTDS. Sum the resulting Hazard Quotients together to determine the Hazard Index. If more than one compliance sample is available for an analyte in a quarter, systems must average all the results for that analyte in that quarter and then determine the Hazard Quotient(s) from those average values. If the Hazard Index exceeds the MCL, the system is not in compliance with the Hazard Index MCL requirements.

(ii) For systems monitoring less frequently, divide the observed sample analytical results by the corresponding HBWC listed in § 141.61(c) to obtain a Hazard Quotient. Sum the resulting Hazard Quotients together to determine the Hazard Index.

(A) For systems taking one sample during each three-year compliance period, if more than one compliance sample is available for an analyte, systems must average all the results for that analyte to determine the Hazard Quotient and the Hazard Index. If the Hazard Index exceeds the MCL, the system is required to initiate quarterly monitoring with the Hazard Index sampling result used as the first quarter of monitoring for the running annual average calculation.

(B) For systems taking two samples during each three-year compliance period, if more than one sample is available for an analyte, systems must average all the results for that analyte to determine the Hazard Quotient(s) and the Hazard Index for that quarter. Average the two Hazard Indices calculated during the compliance period. If the average of the Hazard Indices exceeds the MCL, the system is required to initiate quarterly monitoring with the Hazard Index average sampling result used as the first quarter of monitoring for the running annual average calculation.

(iii) If a sample result is less than the practical quantitation limit for a regulated PFAS, in accordance with the table in paragraph (f)(1)(i)(C) of this section, zero will be used for that analyte to calculate the annual average.

§ 141.904 Reporting and recordkeeping requirements.

Systems required to sample must report to the State according to the timeframes and provisions of § 141.31. Systems must report the information specified in the following table:

TABLE 1 TO § 141.904

If you are a . . .	You must report . . .
System monitoring for regulated PFAS under the requirements of § 141.902 on a quarterly basis.	1. All sample results, including the location, number of samples taken at each location, date, and result during the previous quarter. 2. The running annual average at each sampling point of all samples taken in the last four quarters. 3. Whether, based on § 141.902, the MCL was violated. 4. Whether, based on § 141.902, the trigger level was met or exceeded.
System monitoring for regulated PFAS under the requirements of § 141.902 less frequently than quarterly.	1. The location, date, and result of each sample taken during the last monitoring period. 2. The running annual average at each sampling point of all samples taken in the last twelve months. 3. Whether, based on § 141.902, the trigger level was met or exceeded.

§ 141.905 Violations.

(a) PFAS MCL violations, both for PFOA and PFOS MCLs as well as the Hazard Index MCL are based on a running annual average under § 141.XX.d. Failure to monitor in accordance with the requirements under § 141.XX.c (monitoring requirements) of this section is a monitoring violation.

(b) Compliance with § 141.61(c) must be determined based on the analytical results obtained at each sampling point. If one sampling point is in violation of an MCL, the system is in violation of the MCL.

(1) For systems monitoring quarterly, compliance with the MCL is determined by a running annual average at each sampling point.

(2) Systems monitoring triennially whose sample result is at or exceeds the trigger level as defined by § 141.902(a)(7) of this section must begin quarterly sampling. The system will not be considered in violation of the MCL until it has completed one year of quarterly sampling.

(i) If any sample result will cause the running annual average to exceed the MCL at any sampling point, the system is out of compliance with the MCL immediately.

(ii) If a system fails to collect the required number of samples, compliance will be based on the total number of samples collected.

(iii) If a sample result is less than the practical quantitation limit for regulated PFAS as shown in § 141.903(f)(1)(i)(C), zero will be used to calculate the annual average.

PART 142—NATIONAL PRIMARY DRINKING WATER REGULATIONS IMPLEMENTATION

■ 15. The authority citation for part 142 continues to read as follows:

Authority: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

■ 16. Amend § 142.16 by adding paragraph (r) to read as follows:

§ 142.16 Special primacy requirements.

* * * * *

(r) *Requirements for States to adopt 40 CFR part 141, subpart Z.* In addition to the general primacy requirements elsewhere in this part, including the requirements that State regulations be at least as stringent as Federal requirements, an application for approval of a State program revision that adopts 40 CFR part 141, subpart Z, must contain the following:

(1) The States procedures for use of pre-existing data to meet the initial monitoring requirements specified in § 141.902, including the criteria that will be used to determine if the data is acceptable.

(2) The States procedures for ensuring all systems complete the initial monitoring period requirements that will result in a high degree of monitoring compliance by the regulatory deadlines.

(i) The initial monitoring plan must describe how systems will be scheduled during the initial monitoring period and demonstrate that the analytical workload on certified laboratories has been taken into account.

(ii) The State will update the initial monitoring plan as necessary and must demonstrate that the monitoring plan is enforceable under State law.

(3) After the initial monitoring period, States establish the initial monitoring requirements for new systems and new sources. States must explain their initial monitoring schedules and how these monitoring schedules ensure that public water systems and sources comply with MCL's and monitoring requirements. States must also specify the time frame in which new systems will demonstrate compliance with the MCLs.

■ 17. Amend § 142.62 by revising paragraph (a) to read as follows:

§ 142.62 Variances and exemptions from the maximum contaminant levels for organic and inorganic chemicals.

(a) The Administrator, pursuant to section 1415(a)(1)(A) of the Act, hereby identifies the following as the best available technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for the PFAS listed in § 141.61(c) of this chapter, for the purposes of issuing variances and exemptions, as shown in tables 1 and 2 to this paragraph (a).

TABLE 1 TO PARAGRAPH (a)—BAT FOR PFAS LISTED IN § 141.61

Contaminant	BAT
PFOA	Ion exchange, reverse osmosis, GAC, nanofiltration.
PFOS	Ion exchange, reverse osmosis, GAC, nanofiltration.
Hazard Index PFAS (PFHxS, HFPO–DA, PFNA, PFBS)	Ion exchange, reverse osmosis, GAC, nanofiltration.

TABLE 2 TO PARAGRAPH (a)—LIST OF SMALL SYSTEM COMPLIANCE TECHNOLOGIES FOR PFAS

Unit technologies	Limitations [a b c]	Operator skill level required	Raw water quality range and considerations
Ion Exchange	a, b	Basic to Intermediate	All ground waters.
GAC	B	Basic to Intermediate	All waters.

[a] Mostly operated as a single use. The regeneration solution contains high concentrations of the organic solvents not typically used in the regeneration of resins contaminated with other pollutants. Disposal options should be considered before choosing this technology.
[b] Waste media may contain high concentrations of the contaminant. Disposal options should be considered before choosing this technology.
[c] Point of use is not currently accepted as a small system compliance technology, however POU treatment is reasonably anticipated to become a compliance option for small systems in the future if third-party certification organizations develop a new certification standard that meets or requires treatment to concentrations lower than EPA's proposed MCLs.

* * * * *

[FR Doc. 2023–05471 Filed 3–23–23; 11:15 am]

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Part III

Department of the Interior

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for 12 Species, and Not Prudent Determination for 2 Species, on Hawai'i Island; Proposed Rule

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R1–ES–2023–0017; FF09E21000 FXES1111090FEDR 234]

RIN 1018–BG65

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for 12 Species, and Not Prudent Determination for 2 Species, on Hawai'i Island

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to designate critical habitat for 12 federally endangered species on the island of Hawai'i under the Endangered Species Act of 1973 (Act), as amended. In total, approximately 122,277 acres (49,484 hectares) on the island of Hawai'i, in the State of Hawaii, fall within the boundaries of the proposed critical habitat designation. We announce a public informational meeting and public hearing on, and the availability of a draft economic analysis for, this proposed designation. In addition, we announce our determination that designation of critical habitat is not prudent for two federally endangered species on the island of Hawai'i under the Act.

DATES:

Comment submission: We will accept comments received or postmarked on or before May 30, 2023. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, below) must be received by 11:59 p.m. eastern time on the closing date.

Public informational meeting and public hearing: On April 20, 2023, we will hold a public informational meeting from 6 to 6:45 p.m. Hawai'i time, followed by a public hearing from 6:45 to 8 p.m. Hawai'i time. See *Public Informational Meeting and Hearing,* under **SUPPLEMENTARY INFORMATION**, below, for more information.

ADDRESSES:

Written comments: You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal: *https://www.regulations.gov.* In the Search box, enter FWS–R1–ES–2023–0017, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the panel on the left side of the screen, under the Document Type heading, check the Proposed Rule box to locate this document. You may submit a comment by clicking on ''Comment.''

(2) *By hard copy:* Submit by U.S. mail to: Public Comments Processing, Attn: FWS–R1–ES–2023–0017, U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

We request that you send comments only by the methods described above. We will post all comments on *https://www.regulations.gov.* This generally means that we will post any personal information you provide us (see Information Requested, below, for more information).

Availability of supporting materials: The draft recovery plan, 5-year status reviews, and other materials relating to this proposed critical habitat designation, including coordinates or plot points or both from which the maps are generated, are included in the decision file and are available at *https://www.regulations.gov* under Docket No. FWS–R1–ES–2023–0017.

Public informational meeting and public hearing: We are holding the public informational meeting and public hearing via the Zoom online video platform and via teleconference so that participants can attend remotely. See *Public Informational Meeting and Hearing,* under **SUPPLEMENTARY INFORMATION**, below, for more information.

FOR FURTHER INFORMATION CONTACT: Earl Campbell, Project Leader, U.S. Fish and Wildlife Service, Pacific Islands Fish and Wildlife Office, 300 Ala Moana Boulevard Room 3–122, Honolulu, HI 96850; telephone 808–792–9400. 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, to the maximum extent prudent and determinable, we must designate critical habitat for any species that we determine to be an endangered or threatened species. Making a critical habitat determination can be completed only by issuing a rule through the Administrative Procedure Act rulemaking process (5 U.S.C. 551 *et seq.*).

What this document does. This rule proposes to designate approximately 122,277 acres (ac) (49,484 hectares (ha)) as critical habitat for 12 federally endangered species (11 plants, 1 insect) on the island of Hawai'i. We are also making a determination that designation of critical habitat is not prudent for 2 federally endangered species (1 plant, 1 crustacean) on the island of Hawai'i in the State of Hawaii. In this proposed rule, we are exempting from critical habitat designation for one of the plant species 22,730 ac (9,198 ha) of habitat on Department of Defense (DoD) lands that are subject to the Pōhakuloa Training Area (PTA) Integrated Natural Resources Management Plan (INRMP), which provides a conservation benefit to this species. In addition, in this document, we describe exclusions totaling 4,224 ac (1,710 ha) that we are considering making at the final rule stage, based on permitted and non-permitted plans and agreements.

The basis for our action. Under section 4(a)(3) of the Act, if we determine that a species is an endangered or threatened species, the Secretary of the Interior (Secretary) must designate critical habitat to the maximum extent prudent and determinable. Section 3(5)(A) of the Act defines critical habitat as (i) the specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protections; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary that such areas are essential for the conservation of the species. Section 4(b)(2) of the Act states that the Secretary must make the designation on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impacts of specifying any particular area as critical habitat.

Information Requested

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from other governmental agencies; the Native Hawaiian community; Native American Tribes; the scientific community; industry; or

any other interested parties concerning this proposed rule.

Comments on the Determination That Designation of Critical Habitat Is Not Prudent for Two Species Addressed in This Proposed Rule

We particularly seek comments concerning:

(1) Information regarding our determination that designating critical habitat for the *Pritchardia lanigera* and *Vetericaris chaceorum* is not prudent.

Comments on the Proposed Critical Habitat Designation

For the 12 species for which we are proposing to designate critical habitat, we particularly seek comments concerning:

(1) Specific information on:

(a) The amount and distribution of the species' habitat;

(b) Any additional areas occurring within the range of the species that should be included in the designation because they (i) are occupied at the time of listing and contain the physical or biological features that are essential to the conservation of the species and that may require special management considerations, or (ii) are unoccupied at the time of listing and are essential for the conservation of the species;

(c) Special management considerations or protection that may be needed in the critical habitat areas we are proposing, including managing for the potential effects of climate change; and

(d) To evaluate the potential to include areas not occupied at the time of listing, we particularly seek comments regarding whether occupied areas are adequate for the conservation of the species. Additionally, please provide specific information regarding whether or not unoccupied areas would, with reasonable certainty, contribute to the conservation of the species and contain at least one physical or biological feature essential to the conservation of the species. We also seek comments or information regarding whether areas not occupied at the time of listing qualify as habitat for the species.

(2) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat.

(3) Any probable economic, national security, or other relevant impacts of designating any area that may be included in the final designation, and the related benefits of including or excluding specific areas.

(4) Information on the extent to which the description of probable economic impacts in the draft economic analysis (DEA) is a reasonable estimate of the likely economic impacts and any additional information regarding probable economic impacts that we should consider.

(5) Whether any specific areas we are proposing for critical habitat designation should be considered for exclusion under section 4(b)(2) of the Act, and whether the benefits of potentially excluding any specific area outweigh the benefits of including that area under section 4(b)(2) of the Act. If you think we should exclude any additional areas, please provide information supporting a benefit of exclusion. We particularly seek comments on the exclusion from critical habitat designation of those areas addressed by a conservation program or plan. These may include Federal, Tribal, State, county, local, or private lands with permitted conservation plans covering the species in the area, such as habitat conservation plans, safe harbor agreements, or conservation easements, or nonpermitted conservation agreements and partnerships that would be encouraged by designation of or exclusion from critical habitat. Detailed information regarding these plans, agreements, easements, and partnerships is also requested, including:

(a) The location and size of lands covered by the plan, agreement, easement, or partnership;

(b) The duration of the plan, agreement, easement, or partnership;

(c) Who holds or manages the land;

(d) What management activities are conducted;

(e) What land uses are allowable; and

(f) If management activities are beneficial to the species and its habitat.

(6) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include.

Please note that submissions merely stating support for, or opposition to, the action under consideration without providing supporting information, although noted, do not provide substantial information necessary to support a determination. Section 4(b)(2) of the Act directs that the Secretary shall designate critical habitat on the basis of the best scientific data available.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES**. We request that you send comments only by the methods described in **ADDRESSES**. If you submit information via *https://www.regulations.gov,* your entire submission—including any personal identifying information—will be posted on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on *https://www.regulations.gov.*

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on *https://www.regulations.gov.*

Because we will consider all comments and information we receive during the comment period, our final determinations may differ from this proposal. Based on the new information we receive (and any comments on that new information), our final designations may not include all areas proposed, may include some additional areas that meet the definition of critical habitat, or may exclude some areas if we find the benefits of exclusion outweigh the benefits of inclusion and exclusion will not result in the extinction of the species.

Public Informational Meeting and Public Hearing

We will hold a public informational meeting and public hearing on the date and at the times listed in **DATES**. We are holding the public informational meeting and public hearing via the Zoom online video platform and via teleconference so that participants can attend remotely. To listen and view the meeting and hearing via Zoom, listen to the meeting and hearing by telephone, or provide oral public comments at the public hearing via Zoom or by telephone, you must register. For information on how to register, or if you encounter problems joining Zoom the day of the meeting, visit *https://empsi.zoom.us/webinar/register/WN_qdw8pld2T06EnIInZ68e-g.* Registrants will receive the Zoom link and the telephone number for the public informational meeting and public hearing. If applicable, interested members of the public not familiar with the Zoom platform should view the Zoom video tutorials (*https://support.zoom.us/hc/en-us/articles/206618765-Zoom-video-tutorials*) prior

to the public informational meeting and public hearing.

At the public informational meeting, the Service will provide an overview of the proposed rule and describe the procedures for submitting comments. The public informational meeting will provide an opportunity for dialogue with the Service, but it will not be an opportunity to provide verbal comments on the proposed rule; that opportunity is only available at the public hearing. At the public hearing, the Service will provide interested persons an opportunity to present verbal testimony (formal, oral comments) on this proposed rule. The purpose of the public hearing is to provide a forum for accepting formal verbal testimony that will be recorded and transcribed and become part of the record for this proposed rule. In the event there is a large attendance at the public hearing, the Service may limit the time allotted for verbal testimony. Therefore, anyone wishing to provide verbal testimony at the public hearing is also encouraged to provide a prepared written copy of their statement to us through the Federal eRulemaking Portal or by U.S. mail (see **ADDRESSES**, above). There are no limits on the length of written comments submitted to us. Again, anyone wishing to provide verbal testimony at the public hearing must register before the hearing (*https://empsi.zoom.us/webinar/register/WN_qdw8pld2T06EnIInZ68e-g*). The use of virtual public hearings is consistent with our regulations at 50 CFR 424.16(c)(3).

Reasonable Accommodation

The Service is committed to providing access to the public informational meeting and public hearing for all participants. Closed captioning will be available during the public informational meeting and public hearing. Further, a full audio and video recording and transcript of the public hearing will be posted online at *https://www.fws.gov/office/pacific-islands-fish-and-wildlife/what-we-do/projects-research* after the hearing. Participants will also have access to live audio during the public informational meeting and public hearing via their telephone or computer speakers. Persons with disabilities requiring reasonable accommodations to participate in the meeting and/or hearing should contact the person listed under **FOR FURTHER INFORMATION CONTACT** at least 5 business days prior to the date of the meeting and hearing to help ensure availability. An accessible version of the Service's public informational meeting presentation will also be posted online at *https://www.fws.gov/office/pacific-islands-fish-and-wildlife/what-we-do/projects-research* prior to the meeting and hearing (see **DATES**, above). See *https://www.fws.gov/office/pacific-islands-fish-and-wildlife/what-we-do/projects-research* for more information about reasonable accommodation.

Peer Review

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 will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of such review is to ensure that our proposed critical habitat designation is based on scientifically sound data, assumptions, and analyses. We will invite these peer reviewers to comment, during the public comment period, on the specific assumptions and conclusions regarding the proposed designations of critical habitat. We will consider all comments and information we receive during the comment period on this proposed rule during our preparation of a final rule. Accordingly, our final decisions may differ from this proposal.

Previous Federal Actions

On October 17, 2012, we published in the **Federal Register** (77 FR 63928) a proposed rule to list 15 species, including the 14 species that are the subjects of this proposed rule, on the island of Hawai'i as endangered species under the Act. On October 29, 2013, we published in the **Federal Register** (78 FR 64638) a final rule to list those 15 species as endangered species. See the October 17, 2012, proposed rule for information on previous Federal actions concerning the 14 species that are the subjects of this proposed rule.

In the October 27, 2012, proposed rule (77 FR 63928), we found that critical habitat was prudent but not determinable for the 14 species that are the subject of this proposed rule.

On October 28, 2019, the Center for Biological Diversity (CBD) filed a complaint in the U.S. District Court, District of Hawaii (Case No. 1:19–cv–00588), challenging the failure of the Service to designate critical habitat for the 14 species (consisting of 12 plants (*Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea marksii, Cyanea tritomantha, Cyrtandra nanawaleensis, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Pritchardia lanigera, Schiedea diffusa* ssp. *macraei, Schiedea hawaiiensis,* and *Stenogyne cranwelliae*) and 2 animals (*Drosophila digressa* and *Vetericaris chaceorum*)) within 1 additional year from the date of the proposed listing. We entered into a settlement agreement approved by the court on March 6, 2020, requiring that by February 28, 2023, we submit to the **Federal Register**, for publication, a determination concerning the designation of critical habitat for the 14 species and a proposed rule for any species for which the designation of critical habitat is prudent and determinable; the submission for publication of this proposed rule complies with the settlement agreement.

Background

For species with Hawaiian common names, we prefer to, and will, include Hawaiian language spellings, including diacritical marks, to the degree possible and appropriate in the preambles of our **Federal Register** documents. For the text to be codified in the Code of Federal Regulations (CFR), however, we will omit diacritical marks to ensure that no errors are inadvertently incorporated during the codification process.

We provide a brief description for each of the 14 species addressed in this proposed rule, below.

Bidens hillebrandiana ssp. *hillebrandiana* (koʻokoʻolau), a short-lived perennial herb in the sunflower family (Asteraceae), occurs only on the island of Hawai'i (Ganders and Nagata 1999, pp. 275–276). Historically, *B. hillebrandiana* ssp. *hillebrandiana* was known from two locations along the windward Kohala coastline, in the coastal and dry cliff ecosystems, often along rocks just above the ocean (Degener and Wiebke 1926, in litt.; Flynn 1988, in litt.).

Cyanea marksii (hāhā), a short-lived perennial palmlike shrub in the bellflower family (Campanulaceae), is found only on the island of Hawai'i. Historically, *C. marksii* was known from the Kona district, in the lowland wet and montane wet ecosystems (Lammers 1999, p. 457; Hawai'i Biodiversity Mapping Program (HBMP) database 2010b).

Cyanea tritomantha (ʻakū), a short-lived perennial palmlike shrub in the bellflower family (Campanulaceae), is known only from the island of Hawai'i (Pratt and Abbott 1997, p. 13; Lammers 2004, p. 89). Historically, this species was known from the windward slopes of Mauna Kea, Mauna Loa, Kīlauea, and the Kohala Mountains, in the lowland wet, montane wet, and wet cliff ecosystems (Pratt and Abbott 1997, p. 13).

Cyrtandra nanawaleensis (haʻiwale), a short-lived perennial shrub or small tree in the African violet family (Gesneriaceae), is known only from the island of Hawai'i (Wagner and Herbst 2003, p. 29; Wagner et al. 2005a). Historically, *C. nanawaleensis* was known only from the lowland wet ecosystems in the Puna district (St. John 1987, p. 500; Wagner et al. 1988, in litt.; HBMP 2010d).

Cyrtandra wagneri (haʻiwale), a short-lived perennial shrub or small tree in the African violet family (Gesneriaceae), occurs only on the island of Hawai'i (Lorence and Perlman 2007, p. 357). Historically, *C. wagneri* was known in the lowland wet ecosystem along the northeast side of the island (Lorence and Perlman 2007, p. 359).

Melicope remyi (no common name), a long-lived perennial shrub or shrubby tree in the rue family (Rutaceae), occurs only on the island of Hawai'i (Stone et al. 1999, p. 1210; Service 2010, pp. A–11, 4–74). Historically, *M. remyi* was known from a few scattered individuals on the windward slopes of the Kohala Mountains and several small populations on the windward slopes of Mauna Kea, in the lowland wet and montane wet ecosystems (Stone et al. 1999, p. 1210; HBMP 2010f). We will refer to *Melicope remyi* by this name in this proposed rule; this plant is currently listed as *Platydesma remyi,* but we recently published a direct final rule (88 FR 7134; February 2, 2023) to correct the scientific name to *Melicope remyi* on the List of Endangered and Threatened Plants.

Phyllostegia floribunda (no common name), a short-lived perennial subshrub in the mint family (Lamiaceae), is found only on the island of Hawai'i (Wagner 1999, p. 268; Wagner et al. 1999a, p. 815). Historically, *P. floribunda* was reported in the lowland wet, montane mesic, and montane wet ecosystems at scattered sites along the eastern side of the island.

Pittosporum hawaiiense (hōʻawa, hāʻawa), a small, long-lived perennial tree in the pittosporum family (Pittosporaceae), is known only from the island of Hawai'i (Wagner et al. 1999b, p. 1,044). Historically, *P. hawaiiense* was known from the leeward side of the island, from the Kohala Mountains south to Kaʻū, in the lowland mesic, montane mesic, and montane wet ecosystems (Wagner et al. 1999b, p. 1,044).

Pritchardia lanigera (loulu), a medium-sized, long-lived perennial tree in the palm family (Arecaceae), is found only on the island of Hawai'i (Read and Hodel 1999, p. 1,371; Hodel 2007, pp. 10, 24–25). Historically, *P. lanigera* was known from the Kohala Mountains, Hāmākua district, windward slopes of Mauna Kea, and southern slopes of Mauna Loa, in the lowland mesic, lowland wet, montane wet, and wet cliff ecosystems (Read and Hodel 1999, p. 1,371; National Park Service 2015, pp. 467–468)

Schiedea diffusa ssp. *macraei* (no common name), a short-lived perennial climbing herb in the pink family (Caryophyllaceae), is reported only from the island of Hawai'i (Wagner et al. 2005b; Wagner et al. 2005c, p. 106). Historically, *S. diffusa* ssp. *macraei* was known from the Kohala Mountains, the windward slopes of Mauna Loa, and the Olaa Tract of Hawai'i Volcanoes National Park, in the montane wet ecosystem (Perlman et al. 2001, in litt.; Wagner et al. 2005c, p. 106; HBMP 2010g).

Schiedea hawaiiensis (māʻoliʻoli), a short-lived perennial herb in the pink family (Caryophyllaceae), is known only from the island of Hawai'i (Wagner et al. 2005c, pp. 92–96). Historically, *S. hawaiiensis* was known from a single site between Mauna Loa and Mauna Kea mountains in the montane dry ecosystem (Hillebrand 1888, p. 33; Wagner et al. 2005c, pp. 92–96).

Stenogyne cranwelliae (no common name), a short-lived perennial vine in the mint family (Lamiaceae), is known only from the island of Hawai'i. Historically, *S. cranwelliae* was known from the Kohala Mountains, in the montane wet and wet cliff ecosystems (Weller and Sakai 1999, p. 837).

Drosophila digressa (Hawaiian picture-wing fly), a member of the family Drosophilidae, is found only on the island of Hawai'i and historically known from five locations on the island in elevations ranging from approximately 2,000 to 4,500 ft (610 to 1,370 m), in the lowland mesic, montane mesic, and montane wet ecosystems (Hardy and Kaneshiro 1968, p. 182; Montgomery 1975, p. 95; Magnacca 2012, pers. comm.). This species is small, with adults ranging in size from 0.15 to 0.19 in (4.0 to 5.0 mm) in length. Adults are brownish yellow in color and have yellow-colored legs and hyaline (shiny-clear) wings with prominent brown spots. Like many endemic Hawaiian Drosophilidae species, *D. digressa* are highly host-plant-specific (Magnacca et al. 2008, p. 1), relying on the decaying stems of *Charpentiera* spp., *Ceodes brunoniana* (previously known as *Pisonia brunoniana*), and *Rockia sandwicensis* (previously known as *Pisonia sandwicensis*) for reproduction and larval substrate (Magnacca et al. 2008, pp. 11, 13; Magnacca 2012, pers. comm.).

Vetericaris chaceorum (anchialine pool shrimp), a small shrimp in the family Procarididae, is endemic to anchialine pools. These pools are coastal land-locked bodies of water that have underground hydrological connections to the ocean, contain varying levels of salinity, and show tidal fluctuations in water level. *Vetericaris chaceorum* is one of seven described species of hypogeal (underground) shrimp found in the Hawaiian Islands that occur in anchialine pools (Brock 2004, p. 6) and is relatively large in size for a hypogeal shrimp species; adult *V. chaceorum* measure approximately 2.0 in (5.0 cm) in total body length, excluding the primary antennae, which are approximately the same length as the adult's body length (Kensley and Williams 1986, p. 419). The species lacks large chelapeds (claws) (Kensley and Williams 1986, p. 426), which are a key diagnostic characteristic of all other known shrimp species. *Vetericaris chaceorum* is largely devoid of pigment and lacks eyes, although eyestalks are present (Kensley and Williams 1986, p. 419).

Additional information about the descriptions of each species' occurrence can be found in the proposed (77 FR 63928, October 17, 2012) and final (78 FR 64638, October 29, 2013) listing rules for these species.

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features:

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Our regulations at 50 CFR 424.02 define the geographical area occupied by the species as an area that may generally be delineated around species' occurrences, as determined by the Secretary (*i.e.,* range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (*e.g.,* migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals).

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation also does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the Federal agency would be required to consult with the Service under section 7(a)(2) of the Act. However, even if the Service were to conclude that the proposed activity would likely result in destruction or adverse modification of the critical habitat, the Federal action agency and the landowner are not required to abandon the proposed activity, or to restore or recover the species; instead, they must implement ''reasonable and prudent alternatives'' to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat).

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information from the species status reports 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 the 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 those planning efforts calls for a different outcome.

Prudency Determination

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, the Secretary shall designate critical habitat at the time the species is determined to be an endangered or threatened species. Our regulations (50 CFR 424.12(a)(1)) state that the Secretary may, but is not required to, determine that a designation would not be prudent in the following circumstances:

(i) The species is threatened by taking or other human activity and identification of critical habitat can be expected to increase the degree of such threat to the species;

(ii) The present or threatened destruction, modification, or curtailment of a species' habitat or range is not a threat to the species, or threats to the species' habitat stem solely from causes that cannot be addressed through management actions resulting from consultations under section 7(a)(2) of the Act;

(iii) Areas within the jurisdiction of the United States provide no more than negligible conservation value, if any, for a species occurring primarily outside the jurisdiction of the United States;

(iv) No areas meet the definition of critical habitat; or

(v) The Secretary otherwise determines that designation of critical habitat would not be prudent based on the best scientific data available.

We are not aware of any threats to *Drosophila digressa, Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea marksii, Cyanea tritomantha,*

Cyrtandra nanawaleensis, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Schiedea hawaiiensis,* and *Stenogyne cranwelliae* that would be attributed to overutilization for commercial, recreational, scientific, or educational purposes. There is no documentation that these species are threatened by taking or other human activity, and we conclude there is currently no imminent threat of collection or vandalism identified for these species. Further, identification and mapping of critical habitat for these species is not expected to result in collection or vandalism. In our species reports and 2013 listing determination (78 FR 64638; October 29, 2013), we determined that the present or threatened destruction, modification, or curtailment of habitat or range is a threat for these 12 species. These 12 species occur wholly in the jurisdiction of the United States, and we are able to identify areas that meet the definition of critical habitat. Therefore, because none of the circumstances enumerated in our regulations at 50 CFR 424.12(a)(1) have been met and because the Secretary has not identified other circumstances for which this designation of critical habitat would be not prudent, we have determined that the designation of critical habitat is prudent for these 12 species.

When we listed *Pritchardia lanigera* and *Vetericaris chaceorum* as endangered (78 FR 64638; October 29, 2013, pp. 63978–63978) we had reason to believe that designation of critical habitat was prudent for these two species at that time; however, new information has become available highlighting a new threat to these two species in the form of collection and overutilization, as detailed below, that now make identification and mapping of critical habitat likely to increase the threat of collection. Designation of critical habitat requires the publication of maps and a narrative description of specific critical habitat areas in the **Federal Register**. The degree of detail in those maps and boundary descriptions would be greater than the general location descriptions provided in the 2013 final rule to list *P. lanigera* and *V. chaceorum* (78 FR 64638; October 29, 2013). Designation of critical habitat would more widely announce the exact locations of these two species to collectors. The publication of maps and descriptions outlining the locations of the species would likely further facilitate unauthorized collection and trade, as collectors would know the exact locations where these species occur.

Pritchardia species have become one of the most widely cultivated ornamental palm genera in the world (78 FR 64638; October 29, 2013). There are a number of websites that offer *Pritchardia* plants and seeds for sale, including 22 species of Hawaiian *Pritchardia.* Twelve of these species are federally protected, including *P. lanigera* (Shirey et al. 2013, p. 307; Weisenberger 2023, pers. comm.). *Pritchardia* species are tall, they can be visible from afar, and they are attractive to collectors of rare palms for their personal use or to trade or sell for personal gain (Shirey et al. 2013, p. 301–302). Distinguishing *Pritchardia* species from one another can be difficult, thus collection activities targeting *Prichardia* species, in general, has potential to also increase collection of *P. lanigera* (Weisenberger 2023, pers. comm.). Based on the collections of Hawaiian *Pritchardia* plants and seeds and the market for these collected specimens, *P. lanigera* are now vulnerable to overharvesting, with collection of *P. lanigera* posing a serious and ongoing threat to the species (Weisenberger 2023, pers. comm.). Although at the time of listing known locations of *P. lanigera* were extremely difficult to access (77 FR 63928, October 17, 2012, p. 63978), recent surveys have identified more accessible populations of *P. lanigera* and conservation management actions have increased accessibility in some instances (Weisenberger 2023, pers. comm.). Because of the narrow range, life history traits, and small population size of this species, any collection poses a threat to the species.

Coincidentally after listing *V. chaceorum* as endangered (78 FR 64638; October 29, 2013, pp. 63978–63978), popularity in the aquarium trade of another Hawaiian anchialine shrimp species, *Halocaridina rubra,* increased. This increase in collection activities of *Halocaridina rubra* has resulted in a risk to *V. chaceorum,* due to these two species sharing a similar appearance and habitat preferences. In the past several years, *Halocaridina rubra,* commonly called the Hawaiian red shrimp or volcano shrimp, has been increasingly prized by aquarists and companies in the pet trade industry worldwide (Yamamoto et al. 2015, p. 83). These anchialine shrimp are sought because of their ability to live in hermetically sealed containers (Yamamoto et al. 2015, p. 83) and as live feed for seahorses (Yamamoto et al. 2015, p. 83). While the shrimp that are being harvested are primarily *H. rubra,* which is not endangered, as the popularity of this business increases, there is risk that the endangered *Vetericaris chaceorum* may either intentionally or accidentally be harvested and become part of the aquarium trade. Collectors may target *V. chaceorum* due to its similar appearance, rarity and aesthetic, or collectors attempting to harvest the *H. rubra* that occur in the same pools as *V. chaceorum* may accidentally harvest both species (Sakihara 2012, entire). Because this shrimp is so rare, a single person with a hand-net could do irreparable damage to a population of *V. chaceorum* (Yamamoto 2015, pers. comm.). Despite the prohibition on collecting within Natural Area Reserves and the permitting process for collection elsewhere, the collection of *V. chaceorum* is considered an ongoing threat because collection can occur at any time owing to a lack of available resources for patrolling or other monitoring or enforcement at the pools where *V. chaceorum* occur.

Designating critical habitat would increase human threats to *Pritchardia lanigera* and *Vetericaris chaceorum* by increasing the vulnerability of these species to unauthorized collection and trade through public disclosure of their locations. The publication of maps and a specific narrative description outlining the locations of this species within critical habitat units in the **Federal Register**, as well as any associated publication of such information in local newspapers and on special interest websites, would facilitate unauthorized collection and trade by detailing the exact locations where *P. lanigera* and *V. chaceorum* occur. Publishing specific location information would provide a high level of assurance that any person going to a specific location would be able to successfully locate and collect specimens. Designating critical habitat could negate the current efforts of State and local conservation agencies to restrict access to location information that could significantly affect future efforts to control the threat of unauthorized collection and trade.

Summary of Prudency Determination for Pritchardia lanigera and Vetericaris chaceorum

We have determined that designating critical habitat for *Pritchardia lanigera* and *Vetericaris chaceorum* is not prudent. Designation of critical habitat would increase the threats to these species from unauthorized collection and trade. Due to the willingness of individuals to collect these species without authorization, we have

determined that any action that publicly discloses the location of *P. lanigera* and *V. chaceorum* (such as critical habitat) puts these species in further peril. Many populations of these two species are small. One of the basic measures to protect *P. lanigera* and *V. chaceorum* from unauthorized collection and trade is restricting access to information about the location of the species' populations. Publishing maps and narrative descriptions of critical habitat for these two species would significantly affect our ability to reduce the threat of unauthorized collection and trade. We have, therefore, determined in accordance with 50 CFR 424.12(a)(1) that it is not prudent to designate critical habitat for *P. lanigera* and *V. chaceorum.*

Physical or Biological Features Essential to the Conservation of the Species

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12(b), in determining which areas we will designate as critical habitat from within the geographical area occupied by the species at the time of listing, we consider the physical or biological features that are essential to the conservation of the species and which may require special management considerations or protection. The regulations at 50 CFR 424.02 define ''physical or biological features essential to the conservation of the species'' as the features that occur in specific areas and that are essential to support the life-history needs of the species, including, but not limited to, water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity. For example, physical features essential to the conservation of the species might include gravel of a particular size required for spawning, alkaline soil for seed germination, protective cover for migration, or susceptibility to flooding or fire that maintains necessary early-successional habitat characteristics. Biological features might include prey species, forage grasses, specific kinds or ages of trees for roosting or nesting, symbiotic fungi, or absence of 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.

In this proposed rule, the physical or biological features are based on the features of the six ecosystem types on which the 11 plant (*Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea marksii, Cyanea tritomantha, Cyrtandra nanawaleensis, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Schiedea hawaiiensis, Stenogyne cranwelliae*) and 1 animal (*Drosophila digressa*) species depend (see table 1, below). These six ecosystems are coastal, dry forest, mesic forest, wet forest, mesic grassland and shrubland, and wet grassland and shrubland; we summarize the descriptions of these ecosystems and our source for the descriptions below. The physical or biological features essential to the conservation of the species identified in this proposed rule are those features required for the successful functioning of the ecosystem in which these species occur or have historically occurred (see table 2, below). Although critical habitat is identified for each species individually, we have found that the conservation of each depends, at least in part, on the successful functioning of the commonly shared ecosystem. Ecosystem parameters include elevation, precipitation, substrate, and associated native plant genera. These ecosystem parameters describe the species-specific physical or biological features of the functioning ecosystems on which these listed species depend. For example, the associated native plant genera described as physical or biological features for these 12 listed species are representative of the native plant genera that occur in the functioning ecosystems on which these 12 species depend, and as such, the occurrence of these native plant genera indicate functioning native ecosystems that provide the fundamental biological requirements for the listed species in these areas. Additionally, *Drosophila digressa* relies on native plant genera, specifically *Charpentiera, Rockia,* and *Ceodes,* as native plant host resources, and without which this species would be highly vulnerable to mortality, reproductive failure, and cyclical population variation related to fluctuations in breeding resources (Magnacca et al. 2008, p. 32).

Coastal (as Described by Kim et al. 2020, p. 2)

Coastal ecosystems are defined as near-shore areas that are impacted by the ocean and generally occur within 328 feet (ft) (100 meters (m)) of high tide up to 984 ft (300 m) in elevation. Coastal ecosystems are found on all the main Hawaiian Islands and include coastal dry herblands, coastal dry grasslands, coastal mixed communities, coastal dry shrublands, coastal dry forests, and coastal wet-mesic forests. Coastal substrate includes well-drained talus, calcareous slopes, and dunes. Annual precipitation ranges from less than 47 inches (in) (120 centimeters (cm)) in coastal dry to 47 to 98 in (120 to 250 cm) in coastal mesic, and to more than 98 in (250 cm) in coastal wet ecosystem. *Bidens hillebrandiana* ssp. *hillebrandiana* is the only species addressed in this proposed rule known to occupy the coastal ecosystem.

Dry Forest (as Described by Javar-Salas et al. 2020, p. 2)

Dry forest ecosystems are found on all of the main Hawaiian Islands and include lowland dry forest and montane-alpine dry forest. Dry forest is found from 0 to 9,500 ft (0 to 2,900 m). Annual precipitation ranges from 12 to 79 in (30 to 200 cm). Substrates are generally well-drained, sandy loams from volcanic ash or cinder and weathered basaltic lava in lowland dry forest to well-drained, loams from volcanic ash, cinder, and weathered basaltic lava in montane-alpine dry forest. *Schiedea hawaiiensis* is the only species addressed in this proposed rule known to occupy the dry forest ecosystem.

Mesic Forest (as Described by Lowe et al. 2020, pp. 2–7)

Mesic forest ecosystems include lowland mesic forest and montane subalpine mesic forest. Elevation ranges from 98 to 5,249 ft (30 to 1,600 m) in lowland mesic forest to 2,953 to 6,562 ft (900 to 2,000 m) in montane subalpine mesic forest. Annual precipitation

ranges from 39 to 150 in (100 to 380 cm) in montane subalpine to 47 to 150 in (120 to 380 cm) in lowland mesic forest. Substrates are generally well-drained and include rocky, shallow, organic muck soils; steep rocky talus soils; shallow soils over weathered rock in steep gulches; deep soils over soft weathered rock; and gravelly alluvium. The plants *Cyrtandra nanawaleensis, Phyllostegia floribunda,* and *Pittosporum hawaiiense* addressed in this proposed rule are found in the mesic forest ecosystem. The picture-wing fly, *Drosophila digressa,* addressed in this proposed rule is also found in the mesic forest ecosystem.

Wet Forest (as Described by Clark et al. 2020, p. 2)

Wet forest ecosystems include lowland rainforest, montane rainforest, and montane cloud forest. Elevation ranges from 328 to 3,937 ft (100 to 1,200 m) in lowland rainforest; 2,700 to 7,218 ft (823 to 2,200 m) in montane rainforest; and 2,461 to 6,070 ft (750 to 1,830 m) in montane cloud forest. Annual precipitation is greater than 98 in (250 cm). Substrates range from very weathered soils to rocky substrate with classes of undeveloped and developed soil substrates formed from basalt lava. The plants *Cyanea marksii, Cyanea tritomantha, Cyrtandra nanawaleensis, Cyrtandra wagneri, Phyllostegia floribunda, Pittosporum hawaiiense, Melicope remyi, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* addressed in this proposed rule are found in the wet forest ecosystem. *Drosophila digressa* is also found in the wet forest ecosystem.

Mesic Grassland and Shrubland (as Described by Ball et al. 2020, p. 2)

Mesic grassland and shrubland ecosystems include lowland mesic shrubland, subalpine mesic shrubland, montane-subalpine mesic grassland, and lowland mesic grassland. Elevation ranges from 98 to 7,546 ft (30 to 2,300 m). Annual precipitation ranges from 39 to 98 in (100 to 250 cm). Substrates generally include shallow soils that frequently dry with rocky outcrops. *Cyrtandra nanawaleensis* is the only species addressed in this proposed rule known to occupy the mesic grassland and shrubland ecosystem.

Wet Grassland and Shrubland (as Described by Nelson et al. 2020, p. 3)

Wet grassland and shrubland ecosystems include native wet sedge and grassland and native wet cliff and crest shrubland. Elevation ranges from 656 to 2,953 ft (200 to 900 m). Annual precipitation ranges from 98 to 197 in (250 to 500 cm). Substrates range from older, weathered soils to younger, rocky substrates. The plants *Cyanea tritomantha* and *Phyllostegia floribunda* addressed in this proposed rule are found in the wet grassland and shrubland ecosystem.

Summary of Essential Physical or Biological Features

We derive the specific physical or biological features essential to the conservation of the 12 species from studies of the species' habitat, ecology, and life history as described below. Additional information about the ecosystems containing these physical or biological features and descriptions of each species' occurrence within these ecosystems can be found in the proposed (77 FR 63928, October 17, 2012) and final (78 FR 64638, October 29, 2013) listing rules for these species. Each species identified in this rule requires the physical or biological features for each ecosystem in which that species occurs, as noted in table 1. Table 2, below, identifies the physical or biological features of a functioning ecosystem for each of the ecosystem types identified in this proposed rule. The physical or biological features are defined here by elevation, annual levels of precipitation, substrate type, and the characteristic native plant genera that are found in the canopy, subcanopy, and understory levels of the vegetative community where applicable. Due to our limited knowledge of the specific life-history requirements for the species that are little-studied and occur in remote and inaccessible areas, the physical or biological features described in this document that provide for the successful function of the ecosystem that is essential to the conservation of the species represents the best, and, in many cases, the only, scientific information available. Accordingly, the physical or biological features of a functioning ecosystem are, at least in part, the physical or biological features essential to the conservation of these 12 species.

TABLE 1—TWELVE SPECIES AND APPLICABLE ECOSYSTEMS

[Note: All species, except for Bidens hillebrandiana ssp. hillebrandiana and Schiedea hawaiiensis are found in multiple ecosystems.]

Ecosystem	Species
Coastal	*Bidens hillebrandiana* ssp. *hillebrandiana*.
Dry Forest	*Schiedea hawaiiensis*.
Mesic Forest	*Cyrtandra nanawaleensis, Phyllostegia floribunda, Pittosporum hawaiiense, Drosophila digressa*.
Wet Forest	*Cyanea marksii, Cyanea tritomantha, Cyrtandra nanawaleensis, Cyrtandra wagneri, Drosophila digressa, Phyllostegia floribunda, Pittosporum hawaiiense, Melicope remyi, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*.
Mesic Grassland and Shrubland	*Cyrtandra nanawaleensis*.
Wet Grassland and Shrubland	*Cyanea tritomantha, Phyllostegia floribunda*.

TABLE 2—PHYSICAL OR BIOLOGICAL FEATURES FOR EACH ECOSYSTEM UPON WHICH THE 12 SPECIES DEPEND

[Read in association with table 1]

Ecosystem	Elevation	Annual precipitation	Substrate	Contain one or more of these associated native plant genera		
				Canopy	Subcanopy	Understory
Coastal	<980 ft (<300 m).	<47 to >98 in (<120 cm to >250 cm).	well-drained talus, calcareous slopes, dunes.	*Diospyros, Metrosideros, Myoporum, Pritchardia.*	*Chenopodium, Gossypium, Heliotropium, Santalum, Scaevola.*	*Eragrostis, Sesuvium, Sida, Sporobolus.*

TABLE 2—PHYSICAL OR BIOLOGICAL FEATURES FOR EACH ECOSYSTEM UPON WHICH THE 12 SPECIES DEPEND—Continued

[Read in association with table 1]

Ecosystem	Elevation	Annual precipitation	Substrate	Contain one or more of these associated native plant genera		
				Canopy	Subcanopy	Understory
Dry Forest	<9,500 ft (<2,900 m).	<79 in (<200 cm).	well-drained, sandy loams or loams from volcanic ash or cinder; weathered basaltic lava.	*Acacia, Colubrina, Diospyros, Erythrina, Melicope, Metrosideros, Myoporum, Myrsine, Sophora.*	*Achyranthes, Euphorbia, Leptecophylla, Nototrichium.*	*Dodonaea, Doryopteris, Heteropogon, Pellaea.*
Mesic Forest	<6,600 ft (<2,000 m).	39–150 in (100–380 cm).	rocky, shallow, organic muck soils; rocky talus soils; shallow soils over weathered rock; deep soils over soft weathered rock; gravelly alluvium.	*Acacia, Antidesma, Charpentiera, Chrysodracon, Metrosideros, Myrsine, Nestegis, Pisonia, Santalum.*	*Coprosma, Freycinetia, Leptecophylla, Myoporum, Pipturus, Rubus, Sadleria, Sophora.*	*Ctenitis, Doodia, Dryopteris, Pelea, Sadleria.*
Wet Forest	<7,300 ft (<2,225 m).	>98 in (>250 cm).	very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.	*Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*	*Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*	*Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*
Mesic Grassland and Shrubland.	100–7,500 ft (30–2,300 m).	39–98 in (100–250 cm).	shallow soils that frequently dry with rocky outcrops.	*Coprosma, Metrosideros, Wilkesia.*	*Dodonaea, Dubautia, Leptecophylla, Osteomeles, Sadleria, Vaccinium.*	*Bidens, Carex, Deschampsia, Dicranopteris, Dryopteris, Eragrostis, Euphorbia, Lipochaeta.*
Wet Grassland and Shrubland.	660–2,950 ft (200–900 m).	98–197 in (250–500 cm).	older, weathered soils to younger, rocky substrates.	*Ilex, Kadua, Melicope, Metrosideros, Myrsine.*	*Cibotium, Clermontia, Dubautia, Freycinetia, Hydrangea, Lobelia, Pipturus, Touchardia, Urera, Vaccinium.*	*Carex, Cladium, Deschampsia, Dicranopteris, Eragrostis, Peperomia, Phyllostegia, Scaevola.*

The physical or biological features identified in this proposed rule take into consideration the ecosystem types in which each species occurs, as described above, and also reflect a distribution that we believe is essential to achieving the species' recovery needs within those ecosystems. We considered the current population status of each species, to the extent it is known, and assessed its status relative to the recovery objectives for that species, in terms of population goals (numbers of populations and individuals in each population, which contributes to population resiliency) and distribution (whether the species occurs in habitats representative of its historic geographical and ecological distribution, and are sufficiently redundant to withstand the loss of some populations over time). This assessment informed us as to whether the species requires space for population growth and expansion in areas occupied at the time of listing, or whether additional areas unoccupied at the time of listing may be required for the reestablishment of populations to achieve conservation.

Some of the species addressed in this proposed rule occur in more than one ecosystem. The physical or biological features for these species are described separately for each ecosystem in which they occur. The reasoning behind this approach is that each species requires a different suite of environmental conditions depending upon the ecosystem in which it occurs. For example, *Cyrtandra nanawaleensis* will occur in association with different native plant species, depending on the mesic forest, wet forest, or mesic grassland and shrubland ecosystem type where it is found. Each of the physical or biological features described in each ecosystem in which the species occurs are essential to the conservation of the species, which includes the ability to support the geographical and ecological distribution across the different ecosystem types where the species occurs. Each physical or biological feature is also essential to retaining the genetic representation that allows this species to successfully adapt to different environmental conditions in various native ecosystems. Although some of these species occur in multiple native ecosystems, their declining abundance in the face of ongoing threats, such as increasing numbers of nonnative plant competitors, indicates that they are not such broad habitat generalists as to be able to persist in highly altered habitats. Based on an analysis of the best available scientific information, functioning native ecosystems provide the fundamental biological requirements for the narrow-range, island-endemic species that are addressed in this proposed rule.

Some examples may help to clarify our approach to describing the physical or biological features for each species. To understand the physical or biological features for the plant *Bidens hillebrandiana* ssp. *hillebrandiana,* for example, we first look at table 1 and see that *B. hillebrandiana* ssp. *hillebrandiana* depends on the coastal ecosystem. Table 2 indicates that the physical or biological features in the coastal ecosystem include elevations of less than 980 ft (300 m); annual precipitation ranges from less than 47 in (120 cm) to more than 98 in (250 cm); well-drained talus, calcareous slopes, and dunes; and contain one or more genera of the subcanopy and understory plants *Chenopodium, Eragrostis, Gossypium, Heliotropium, Santalum, Scaevola, Sesuvium, Sida,* and *Sporobolus,* and one or more of the genera of the canopy species *Diospyros, Metrosideros, Myoporum,* and *Pritchardia.* The specific physical or biological features for *B. hillebrandiana* ssp. *hillebrandiana* are intrinsically tied to the coastal ecosystem. The physical

or biological features of the coastal ecosystem best approximate the physical or biological features for *B. hillebrandiana* ssp. *hillebrandiana.* Thus, we use the physical and biological features provided in the ecosystem in which *B. hillebrandiana* ssp. *hillebrandiana* is found as the physical and biological features for *B. hillebrandiana* ssp. *hillebrandiana.*

As another example, table 1 indicates the physical or biological features for the plant *Phyllostegia floribunda* include the ecosystem-level physical or biological features for the mesic forest, wet forest, and wet grassland and shrubland ecosystems. The physical or biological features for *P. floribunda* are thus composed of the physical or biological features for each of the three ecosystems it occupies, as described in table 2 for the mesic forest, wet forest, and wet shrubland and grassland ecosystems. Table 1 is read in a similar fashion in conjunction with table 2 to describe the physical or biological features for each of the 12 species for which we are proposing critical habitat.

Special Management Considerations or Protection

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features which are essential to the conservation of the species and which may require special management considerations or protection. The following discussion of special management needs is applicable to each of the 12 species on the island of Hawai'i for which we are designating critical habitat.

For the 11 plant species and *Drosophila digressa,* we have determined that the features essential to their conservation are those required for the successful functioning of the ecosystem in which they occur (see tables 1 and 2, above); conversely, threats that act at the ecosystem level also act at the species level. Special management considerations or protections may be required throughout the critical habitat areas proposed for designation here to avoid further degradation or destruction of the physical or biological features essential to the 12 species' conservation. Habitat degradation, including trampling and herbivory by introduced ungulates, fire, drought, and habitat modification by invasive plants, are the greatest threats to these 12 species, and these threats act at the ecosystem level. Threats specific to *Drosophila digressa* habitat include loss or lack of host plants from ungulates, drought, fire, alteration of microclimate by invasive plants or the plant disease referred to as rapid 'ōhi'a death (ROD), (78 FR 64638, October 29, 2013; Service 2021f, pp. 21–23). Some of these threats may be addressed by special management considerations or protection, while others (*e.g.,* sea level rise, hurricanes, drought, volcanic eruption) are beyond the control of landowners and managers. For a more detailed description of threats, please see the proposed listing rule (77 FR 63928, October 17, 2012, pp. 63941–63974), the final listing rule (78 FR 64638, October 29, 2013, pp. 64653–64686), and the draft recovery plan (Service 2022a, entire).

While the 12 species share many threats, impacts to individual species and the actions needed to eliminate or manage the threats may differ. Special management considerations or protections may thus be needed within critical habitat areas to address the threats for each of the 12 species. Management activities that could minimize or ameliorate these threats include, but are not limited to, ungulate removal and exclusion fencing; control or eradication of significant habitat-modifying, invasive plants; fire management planning and wildfire response; and measures to reduce of the spread of rapid 'ōhi'a death (ROD) and other plant pathogens. Management activities that could minimize or ameliorate threats specific to *Drosophila digressa* include control measures to reduce and eradicate invasive invertebrates, such as wasps and ants. These management actions would result in the protection of areas providing habitat for the 12 species.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. In accordance with the Act and our implementing regulations at 50 CFR 424.12(b), we review available information pertaining to the habitat requirements of the species and identify specific areas within the geographical area occupied by the species at the time of listing and any specific areas outside the geographical area occupied by the species to be considered for designation as critical habitat. For each of the 12 species for which we are proposing critical habitat, except *Schiedea hawaiiensis,* we are proposing to designate critical habitat in areas within the geographical area occupied by the species at the time of listing. For *Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea marksii,* and *Cyrtandra nanawaleensis,* we are not proposing to designate any areas outside the geographical area occupied by the species because we have not identified any unoccupied areas that meet the definition of critical habitat for these species; no unoccupied areas had at least one physical or biological features essential to the conservation of the species and a reasonable certainty of contributing to conservation.

We are proposing to designate specific areas outside the geographical area occupied by the species at the time of its listing for nine species. For eight of these species, we are also proposing to designate critical habitat based on occupancy at the time of listing (*Drosophila digressa, Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*). We are not proposing any occupied areas a critical habitat for the ninth species, *Schiedea hawaiiensis.* For *Schiedea hawaiiensis,* we are proposing to designate only unoccupied critical habitat because the single area known to be occupied by the species at the time of listing is exempted from designation (see Exemptions, below, for more information) and the amount of occupied areas were determined to be inadequate to ensure conservation of the species. All other proposed unoccupied critical habitat areas overlap entirely with a geographical area for which we are proposing occupied critical habitat for at least 1 of the other 12 species. The proposed unoccupied critical habitat for *Schiedea hawaiiensis,* however, has no overlap in geographic occurrence with the other species addressed in this proposed rule.

We propose to designate areas outside the geographical area occupied by these species (*Drosophila digressa, Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Schiedea hawaiiensis*) due to small population sizes, few individuals, or reduced geographic range, which make these species vulnerable to stochastic events. Many of these species are so rare in the wild that they are at a high risk of extirpation or even extinction from various events, such as hurricanes or landslides. Therefore, supporting resilience and redundancy in these species through the establishment of multiple, robust populations is a key component of conservation of the species (Service 2022a, pp. 29–30, 35, 39, 48–49). A designation limited to occupied areas would be inadequate to ensure the conservation of these species. Areas that

may have been unoccupied at the time of listing, together with areas occupied at the time of listing, are reasonably certain to provide some or all of the habitat necessary for the expansion of existing wild populations and reestablishment of wild populations within the historical range of the species to achieve a level that could approach recovery. The best available scientific information suggests that the ecosystems in the unoccupied areas in which we are proposing critical habitat provide one or more of the physical or biological features that support life-history requirements of these nine species, and thus these unoccupied areas are considered habitat for the conservation of these nine species. These areas support recovery in the case of stochastic events that otherwise have potential to eliminate a species from the one, or more, of the locations where it is currently found. We find, therefore, that designation of these unoccupied areas as critical habitat is essential for the conservation of the species. Designating unoccupied areas as critical habitat for these species also promotes conservation actions to restore their historical, geographical, and ecological representation, necessary for their recovery.

In this proposed rule, we propose critical habitat for 12 species in 20 distinct areas that include 40 critical habitat units, with animal and plant units identified separately. Each proposed critical habitat unit contains all or some of the physical or biological features essential to the conservation of those individual species that occupy that particular unit, or areas essential for the conservation of those species identified that do not presently occupy that particular unit. The proposed critical habitat for all species includes the functioning ecosystems on which they depend; thus, for those species with life-history requirements that can be supported in multiple ecosystem types, we have identified areas of critical habitat in multiple ecosystem types. For example, the plant *Cyrtandra nanawaleensis* is found in multiple critical habitat units across three ecosystem types: mesic forest, mesic grassland and shrubland, and wet forest.

Because we have determined that the features essential to the conservation of the 12 species are those required for the successful functioning of the ecosystems in which they respectively occur, we grouped species by the commonly shared ecosystem type to delineate critical habitat units. We used similar methods to identify critical habitat unit boundaries for nine plant species: *Cyanea marksii, Cyanea tritomantha, Cyrtandra nanawaleensis, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae.* These nine species were considered together because spatial data used for delineating critical habitat are similar among these species, and these species all occur within mesic to wet ecosystems, whereas the remaining two plant species do not (see table 1, above). We considered each species separately within their shared dependence on the functioning ecosystems they have in common. We used separate methods to identify critical habitat unit boundaries for each of the remaining three species: *Bidens hillebrandiana* ssp. *hillebrandiana, Schiedea hawaiiensis,* and *Drosophila digressa. Bidens hillebrandiana* ssp. *hillebrandiana* and *Schiedea hawaiiensis* each occur in an ecosystem type not shared with any of the other 12 species, and *Drosophila digressa* was considered separately because of differences in taxonomy and life history from the plants. Critical habitat boundaries for all species were delineated to clearly depict and promote conservation of these species by identifying the functioning ecosystem on which they depend. Ecosystem types that support the species addressed here but that do not form a contiguous area are divided geographically into separate units. In units consisting of multiple ecosystem types, if a species' physical or biological features are provided by one of the ecosystem types, we propose to designate the entire area as critical habitat for that species. We took this approach because within these units, ecosystem types are patchily distributed at a relatively fine resolution, intermingled, and can be dynamic on a relatively short timescale in their distribution within the critical habitat area.

To delineate the proposed critical habitat units, we relied on an overall conservation strategy in which each of the 12 species was considered separately using a common approach for 9 plant species, and a separate approach for the remaining 2 plant species and *Drosophila digressa.* The goal of the conservation strategy was to identify the specific areas for each species that provide essential physical or biological features without which range-wide resiliency, redundancy, and representation could not be achieved. The conservation strategy considered (1) historical and current distribution of each of the 12 species; (2) assessments of resiliency, redundancy, and representation for each species from the most recent species reports (Service 2021a–n); and (3) recovery planning efforts (Service 2022a, entire). Some of the proposed critical habitat for these 12 species overlies critical habitat already designated for other species on the island of Hawai'i.

In summary, we completed the following basic steps to delineate critical habitat (specific methods follow below):

(1) We compiled the best scientific data available on observations and distributions of the 12 species that were extant at the time of listing;

(2) We compiled all available location and landcover data, including ecosystem type, within the range of the 12 species;

(3) We identified areas containing the physical or biological features that may require special management consideration or protection;

(4) We circumscribed boundaries of potential critical habitat units based on the above information; and

(5) We removed, to the extent practicable, all areas that did not have the specific physical or biological feature components, and therefore are not considered essential to the conservation of one or more of these 12 species.

Based on these five steps, for areas within and outside the geographic area occupied by the species at the time of listing, we delineated critical habitat unit boundaries using the following methods:

(1) Species observation and distribution data sources: We obtained observational and distributional data to include in our Geographic Information System database for each of the 12 species including the known locations of the species from the Hawai'i Biodiversity Mapping Program (HBMP) database (HBMP 2010a, entire; HBMP 2010b, entire; HBMP 2010c, entire; HBMP 2010d, entire; HBMP 2010e, entire; HBMP 2010f, entire; HBMP 2010g, entire; HBMP 2010h, entire), the Plant Extinction Prevention Program database (PEPP 2021, unpublished), and our own rare plant database. We also obtained and compiled species information from the plant database housed at National Tropical Botanical Garden (*https://ntbg.org/database/herbarium/*). We used Hawai'i Biodiversity Mapping Program's Geographic reference areas for the Hawaiian Islands in conjunction with known species' location data (Kam 2017, p. 1; Hawai'i Rare Plant Restoration Group 2020, p. 2). For plants, we obtained and compiled species range maps, as determined by plant species ranges in the Hawaiian

Islands (Price et al. 2012, entire), and our own plant species range layer adapted from Price et al. 2012 (Service 2022b–l, entire). For *Drosophila digressa,* we created our own potential species range layer using the U.S. Geological Survey's (USGS's) Carbon Assessment Landcover data of 2017 for mesic and wet forest habitats (Selmants et al. 2017, entire; Service 2021f) and the known elevational range of the species, which is between 2,000 to 4,500 ft (600 to 1,400 m). Lastly, we obtained recent biological surveys and reports and discussed that information with qualified individuals familiar with these 12 species and their ecosystems.

We used current and historical species distribution information to develop initial critical habitat boundaries in each of the six ecosystems that would provide for the conservation of the 12 species. The initial boundaries were superimposed over digital topographic maps of the island of Hawai'i and further evaluated. In general, land areas that were identified as highly degraded were removed from the proposed critical habitat units, and natural or constructed features (*e.g.,* ridge lines, valleys, streams, coastlines, roads, lava flows, obvious land features, etc.) were used to delineate the proposed critical habitat boundaries.

(2) Identified areas containing physical or biological features: We obtained and compiled island-wide elevation, annual precipitation, soil substrate, and associated native plant genera data sources (Gagne and Cuddihy 1999, pp. 45–114; LANDFIRE 2016, pp. 1177–1242; Ball et al. 2020, p. 2; Clark et al. 2020, p. 2; Javar-Salas et al. 2020, p. 2; Kim et al. 2020, p. 2; Lowe et al. 2020, pp. 2–7; Nelson et al. 2020, p. 3). We evaluated areas currently occupied by each species and whether they contain the physical or biological features essential to the conservation of the species and which may require special management considerations or protection. We considered the degree to which the physical or biological features were present or absent in areas as an indication of the successful functioning of the habitat.

(3) Landcover and ecosystem data sources: We obtained and compiled landcover and ecosystem data from the island-wide Geographic Information System coverage including USGS Carbon Assessment Landcover data of 2017 (Selmants et al. 2017, entire) and ArcGIS Esri World Imagery of 2022 (Esri 2023, entire); 1:24,000 scale digital raster graphics of USGS topographic quadrangles; and geospatial data sets associated with parcel data from Hawai'i County (Hawaii Statewide GIS Program 2013, entire). We evaluated areas currently occupied by each species. When a species occurs in more than one ecosystem type, we include the full range of ecosystem types within that species' range. For example, *Phyllostegia floribunda* is known from three of the six ecosystem types addressed in this proposed rule: mesic forest, wet forest, and wet grassland and shrubland ecosystem types.

(4) Circumscribed boundaries of potential critical habitat units: We considered several factors in the selection of specific boundaries for critical habitat for the 12 species. We determined critical habitat unit boundaries taking into consideration the information on known past and present locations of the species, landcover and ecosystem data sources by USGS Carbon Assessment Landcover Data (Selmants et al. 2017, entire), recovery areas described by the species' draft recovery plan, projections of geographic ranges of Hawaiian plant species and *Drosophila digressa* (Price et al. 2012, entire; Service 2021f, entire; Service 2022b–l, entire), and adequate habitat to allow for increases in numbers of individuals and for expansion of populations to provide for the minimum numbers required to reach delisting goals (as described in the draft recovery plan (Service 2022a, entire)). Critical habitat boundaries for all species were delineated to promote the conservation of these species by identifying the functioning ecosystems on which they depend.

(5) Removed areas lacking the identified physical or biological features: When determining proposed 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 the physical or biological features necessary for these 12 species. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations (CFR) may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, if the critical habitat designations are finalized as proposed, a Federal action involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the identified physical or biological features in the critical habitat units.

We propose to designate as critical habitat lands that we have determined are occupied at the time of listing and that contain one or more of the physical or biological features that are essential to support life-history processes of the species. We have determined that occupied areas are inadequate to ensure the conservation of the species. Therefore, we have also identified, and propose for designation as critical habitat, unoccupied areas that are essential for the conservation of nine of the species (see Proposed Critical Habitat Designation, below).

Units are proposed for designation based on one or more of the physical or biological features being present to support the life-history processes for 1 or more of the 12 species for which we propose critical habitat. Some units contain all of the identified physical or biological features and support multiple life-history processes. Some units contain only some elements of the physical or biological features necessary to support the species' particular use of that habitat.

The proposed critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document under Proposed Regulation Promulgation. We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. We will make the coordinates or plot points or both on which each map is based available to the public on *https://www.regulations.gov* at Docket No. FWS–R1–ES–2023–0017.

Proposed Critical Habitat Designation

We are proposing approximately 122,277 ac (49,484 ha) as critical habitat in 20 distinct areas that include 40 critical habitat units, with 9 animal and 31 plant units identified separately, for *Drosophila digressa, Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea marksii, Cyanea tritomantha, Cyrtandra nanawaleensis, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Schiedea hawaiiensis,* and *Stenogyne cranwelliae.* The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for each species. Table 3 shows the proposed critical habitat units and the approximate area of each unit by landowner type.

Within the 20 distinct areas, areas of proposed critical habitat for *Drosophila digressa* are described as 9 sequential

numbered units, whereas areas of proposed critical habitat for plants are described as 19 sequential numbered sections that are then split into 1 or more units, based on whether they overlap with existing designated critical habitat for other plant species on the island of Hawai'i. Some of the proposed critical habitat for *Drosophila digressa* overlays critical habitat already proposed or designated for plant species; however, critical habitat designations for wildlife species at 50 CFR 17.95 are organized differently than critical habitat designations for plant species on the island of Hawai'i at 50 CFR 17.99. Therefore, the proposed critical habitat for *Drosophila digressa* stands alone and is not incorporated into, or presented to address, any existing critical habitat units for other species. Areas of a section that overlay existing Hawaiian plant critical habitat units are assigned to that existing critical habitat unit name. Areas of a section that do not overlay existing Hawaiian plant critical habitat are assigned a sequential new critical habitat unit number. This distinction between existing and newly proposed critical habitat areas is necessary in order to be consistent with the critical habitat unit numbering system we established earlier for plants on the island of Hawai'i (see 50 CFR 17.99(k)). We provide the critical habitat section numbers, where applicable, as well as unit numbers and the corresponding map numbers that would appear at 50 CFR 17.99 if we adopt this rule as proposed for ease of reference in the CFR. All units in the proposed designation, with the exception of Unit 55 within *Schiedea hawaiiensis*—Section 19, are considered occupied at the time of listing (see 78 FR 64638; October 29, 2013) by 1 or more of the 12 species for which we are proposing critical habitat (table 4). Of the 20 distinct areas for which critical habitat is proposed, 13 include animal units or plant sections that are both occupied and unoccupied for 2 or more of the 12 Hawai'i island species.

The areas we propose as critical habitat are located in six ecosystem types: (1) coastal, (2) dry forest, (3) mesic forest, (4) wet forest, (5) mesic grassland and shrubland, and (6) wet grassland and shrubland. Critical habitat designations for plants and animals are published in separate sections of the CFR; however, the proposed critical habitat for the 11 plants and *Drosophila digressa* overlap each other in many areas on the island of Hawai'i. For example, ''*Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*—Section 1'' and ''*Drosophila digressa*—Unit 1'' overlap entirely within the same geographic area. Therefore, because the section and unit boundaries are the same, we describe them together to avoid redundancy and reduce publication costs for this proposed rule, as indicated by ''and'' following the section name in the following headings.

TABLE 3—PROPOSED CRITICAL HABITAT UNITS BY ECOSYSTEM, LAND OWNERSHIP, AND SIZE

[Area estimates reflect all land within critical habitat unit boundaries]

Animal unit	Plant section	Plant unit	Federal (ac (ha))	State (ac (ha))	Private/other (ac (ha))	Total (ac (ha))
Wet Forest						
Drosophila digressa—Unit 1.	*Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*—Section 1.	Unit 3	3,550 (1,436)	7,962 (3,222)	547 (221)	12,059 (4,880)
		Unit 52	548 (222)	2,682 (1,085)	984 (398)	4,213 (1,705)
Subtotal			4,097 (1,658)	10,644 (4,307)	1,531 (619)	16,272 (6,585)
Drosophila digressa—Unit 7.	*Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*—Section 4.	Unit 15		182 (73)		182 (73)
		Unit 39		1,021 (413)	144 (58)	1,164 (471)
Subtotal				1,202 (486)	144 (58)	1,346 (545)
Drosophila digressa—Unit 8.	*Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*—Section 5.	Unit 15		55 (22)	72 (29)	127 (51)
		Unit 38		298 (121)	236 (95)	534 (216)
Subtotal				353 (143)	308 (125)	661 (267)
Drosophila digressa—Unit 6.	*Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*—Section 6.	Unit 16		156 (63)		156 (63)
		Unit 40		1,239 (501)	4 (2)	1,243 (503)
Subtotal				1,395 (565)	4 (2)	1,399 (566)
Drosophila digressa—Unit 2.	*Cyanea tritomantha, Cyrtandra wagneri, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*—Section 11.	Unit 29		494 (200)		494 (200)
		Unit 30	7,235 (2,928)	6,498 (2,630)		13,732 (5,557)
		Unit 51	643 (260)	16,906 (6,841)	316 (128)	17,865 (7,230)
Subtotal			7,877 (3,188)	23,898 (9,671)	316 (128)	32,091 (12,987)
Drosophila digressa—Unit 9.	*Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*—Section 12.	Unit 37	1,906 (771)		<1 (<1)	1,906 (771)
Subtotal			1,906 (771)		<1 (<1)	1,906 (771)

TABLE 3—PROPOSED CRITICAL HABITAT UNITS BY ECOSYSTEM, LAND OWNERSHIP, AND SIZE—Continued
[Area estimates reflect all land within critical habitat unit boundaries]

Animal unit	Plant section	Plant unit	Federal (ac (ha))	State (ac (ha))	Private/other (ac (ha))	Total (ac (ha))
Drosophila digressa—Unit 5.	*Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*—Section 13.	Unit 41		411 (166)	3,001 (1,214)	3,412 (1,381)
Subtotal				411 (166)	3,001 (1,214)	3,412 (1,381)
	Cyrtandra nanawaleensis—Section 15	Unit 47		274 (111)		274 (111)
Subtotal				274 (111)		274 (111)
	Cyrtandra nanawaleensis—Section 16	Unit 48		582 (235)	7 (3)	589 (238)
Subtotal				582 (235)	7 (3)	589 (238)
Mesic Coastal						
	Bidens hillebrandiana ssp. *hillebrandiana*—Section 2.	Unit 6		2 (1)		2 (1)
		Unit 53		80 (33)	245 (99)	325 (132)
Subtotal				82 (33)	245 (99)	327 (132)
Wet Forest and Wet Grassland and Shrubland						
	Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae*—Section 3.	Unit 8		6,805 (2,754)		6,805 (2,754)
		Unit 9		<1 (<1)	1 (<1)	1 (<1)
		Unit 54		5,913 (2,392)	1,738 (703)	7,651 (3,096)
Subtotal				12,718 (5,147)	1,739 (704)	14,457 (5,851)
	Cyrtandra wagneri, Phyllostegia floribunda, Pittosporum hawaiiense—Section 7.	Unit 23	9 (4)			9 (4)
		Unit 45	5,494 (2,223)			5,494 (2,223)
Subtotal			5,503 (2,227)			5,503 (2,227)
	Cyrtandra nanawaleensis, Cyrtandra wagneri, Phyllostegia floribunda—Section 10.	Unit 28		155 (63)		155 (63)
		Unit 46		12,213 (4,942)	6 (2)	12,219 (4,945)
Subtotal				12,368 (5,005)	6 (2)	12,374 (5,008)
Wet Forest and Mesic Forest						
	Cyanea tritomantha, Cyrtandra wagneri, Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae*—Section 8.	Unit 24	1,956 (792)	125 (51)		2,081 (842)
		Unit 44	318 (129)	5,439 (2,201)	649 (263)	6,406 (2,593)
Subtotal			2,274 (920)	5,564 (2,252)	649 (263)	8,487 (3,435)
	Cyrtandra wagneri, Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae*—Section 9.	Unit 24	36 (14)	65 (26)		101 (41)
		Unit 43	1,689 (683)	4,183 (1,693)		5,872 (2,376)
Subtotal			1,725 (698)	4,248 (1,719)		5,973 (2,417)
Drosophila digressa—Unit 3.	*Cyanea tritomantha, Cyrtandra wagneri, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*—Section 14.	Unit 42	8,769 (3,549)	12 (5)		8,781 (3,554)
Subtotal			8,769 (3,549)	12 (5)		8,781 (3,554)
Wet Forest, Mesic Forest, and Mesic Grassland and Shrubland						
	Cyrtandra nanawaleensis—Section 17	Unit 49		875 (354)	1 (<1)	875 (354)
Subtotal				875 (354)	1 (<1)	875 (354)
	Cyrtandra nanawaleensis—Section 18	Unit 50		562 (227)	1 (<1)	562 (227)
Subtotal				562 (227)	1 (<1)	562 (227)
Dry Forest						
	Schiedea hawaiiensis—Section 19	Unit 55		6,822 (2,761)		6,822 (2,761)
Subtotal				6,822 (2,761)		6,822 (2,761)

TABLE 3—PROPOSED CRITICAL HABITAT UNITS BY ECOSYSTEM, LAND OWNERSHIP, AND SIZE—Continued
[Area estimates reflect all land within critical habitat unit boundaries]

Animal unit	Plant section	Plant unit	Federal (ac (ha))	State (ac (ha))	Private/other (ac (ha))	Total (ac (ha))
Mesic Forest						
Drosophila digressa—Unit 4.	.....	.....	.....	167 (67)	.....	167 (67)
Subtotal	.....	.....	.....	167 (67)	.....	167 (67)
Total	.....	.....	32,151 (13,011)	82,177 (33,256)	7,950 (3,217)	122,277 (49,484)

Note: Area sizes may not sum due to rounding.

TABLE 4—PROPOSED CRITICAL HABITAT UNITS FOR 11 HAWAI'I ISLAND PLANT SPECIES.
[O=occupied critical habitat, UN=unoccupied critical habitat.]

Plant Section	**Plant Unit**	***Bidens hillebrandiana* ssp. *hillebrandiana***	***Cyanea marksii***	***Cyanea tritomantha***	***Cyrtandra nanawaleensis***	***Cyrtandra wagneri***	***Melicope remyi***	***Phyllostegia floribunda***	***Pittosporum hawaiiense***	***Schiedea diffusa* ssp. *macraei***	***Schiedea hawaiiensis***	***Stenogyne cranwelliae***	**Corresponding critical habitat map in the Code of Federal Regulations (CFR)**
1	3	-	-	O	-	O	O	O	UN	UN	-	O	11a
	52	-	-	O	-	O	O	O	UN	UN	-	O	119
2	6	O	-	-	-	-	-	-	-	-	-	-	24a
	53	O	-	-	-	-	-	-	-	-	-	-	120
3	8	-	-	O	-	-	UN	UN	O	O	-	O	27a
	9	-	-	O	-	-	UN	UN	O	O	-	O	38a
	54	-	-	O	-	-	UN	UN	O	O	-	O	121
4	15	-	O	-	-	-	-	O	O	UN	-	UN	58a
	39	-	O	-	-	-	-	O	O	UN	-	UN	108
5	15	-	O	-	-	-	-	UN	UN	UN	-	UN	59a
	38	-	O	-	-	-	-	UN	UN	UN	-	UN	107
6	16	-	O	-	-	-	-	O	UN	UN	-	UN	60a
	40	-	O	-	-	-	-	O	UN	UN	-	UN	109
7	23	-	-	-	-	UN	-	O	O	-	-	-	73a
	45	-	-	-	-	UN	-	O	O	-	-	-	114
8	24	-	-	O	-	UN	-	-	O	O	-	UN	78a
	44	-	-	O	-	UN	-	-	O	O	-	UN	113
9	24	-	-	-	-	UN	-	-	O	O	-	UN	81a
	43	-	-	-	-	UN	-	-	O	O	-	UN	112
10	28	-	-	-	O	UN	-	O	-	-	-	-	89a
	46	-	-	-	O	UN	-	O	-	-	-	-	115
11	29	-	-	O	-	UN	-	O	O	O	-	UN	91a
	30	-	-	O	-	UN	-	O	O	O	-	UN	98a
	51	-	-	O	-	UN	-	O	O	O	-	UN	118
12	37	-	O	-	-	-	-	UN	UN	UN	-	UN	106
13	41	-	O	-	-	-	-	O	O	UN	-	UN	110
14	42	-	-	UN	-	UN	-	UN	O	O	-	UN	111
15	47	-	-	-	O	-	-	-	-	-	-	-	116
16	48	-	-	-	O	-	-	-	-	-	-	-	116
17	49	-	-	-	O	-	-	-	-	-	-	-	117
18	50	-	-	-	O	-	-	-	-	-	-	-	117
19	55	-	-	-	-	-	-	-	-	-	UN	-	122

TABLE 5—PROPOSED CRITICAL HABITAT UNITS FOR DROSOPHILA DIGRESSA (PICTURE-WING FLY)

Critical habitat unit	Occupied/unoccupied	Corresponding critical habitat map in the Code of Federal Regulations (CFR)
Drosophila digressa—Unit 1	Unoccupied	*Drosophila digressa*—Hawai'i Island, HI—Unit 1.
Drosophila digressa—Unit 2	Occupied	*Drosophila digressa*—Hawai'i Island, HI—Unit 2.
Drosophila digressa—Unit 3	Unoccupied	*Drosophila digressa*—Hawai'i Island, HI—Unit 3.
Drosophila digressa—Unit 4	Occupied	*Drosophila digressa*—Hawai'i Island, HI—Unit 4.
Drosophila digressa—Unit 5	Unoccupied	*Drosophila digressa*—Hawai'i Island, HI—Unit 5, Unit 6, Unit 7, Unit 8, Unit 9.
Drosophila digressa—Unit 6	Unoccupied.	
Drosophila digressa—Unit 7	Unoccupied.	
Drosophila digressa—Unit 8	Unoccupied.	
Drosophila digressa—Unit 9	Unoccupied.	

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat, for each of the 12 Hawai'i Island species, below.

Descriptions of Proposed Critical Habitat

We describe each section and unit separately, below, but first describe the common rationale for proposing areas of critical habitat as occupied and/or unoccupied critical habitat. All areas that are proposed as occupied habitat for a species are important for that species because these areas are either the last or one of the last remaining areas inhabited by the species and they meet the definition of critical habitat, making these areas necessary for maintaining the redundancy and representation for the species' conservation. This is the case for all sections and units, with the exception of *Schiedea hawaiiensis*—Section 19, which is proposed critical habitat, but is not currently occupied habitat for any of the 12 species. We note which areas are the last remaining area known to be inhabited by a species.

We analyzed whether occupied areas were adequate for the conservation of each of the 12 species based on conservation goals within the recovery plan (Service 2022a, entire). Occupied areas were not able to provide the space needed to meet the target number of reproductive populations and individuals for any of the 12 species, but for three species, no other areas containing physical or biological features are known, leaving nine species (*Drosophila digressa, Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Schiedea hawaiiensis*) for which additional areas containing at least one physical or biological feature essential to the conservation of the species are known. We have determined that all areas of unoccupied habitat that are proposed critical habitat for these species are essential for the conservation of these species because (1) they provide one or more of the physical or biological features necessary for the reestablishment of wild populations within their range, and (2) we have reasonable certainty that these areas will contribute to the conservation of the species by contributing to the areas needed to support the numbers of populations and reproducing individuals needed for recovery, thus helping to ensure resiliency, redundancy, and representation needed for conservation of these species. The establishment of multiple (redundancy), robust populations is a key component of conservation of these species (Service 2022a, pp. 29–30, 35, 39, 48–49). Due to the small numbers of individuals of each of these species, they require suitable habitat and space for expansion or introduction to achieve population levels that could approach recovery. Designating unoccupied areas as critical habitat for these species also supports recovery by allowing the habitat needed to establish additional populations able to withstand environmental stochasticity (resiliency) that otherwise has potential to eliminate a species from the one, or more, of the locations where it is currently found. Designating these unoccupied areas as critical habitat also promotes conservation actions to restore their historical, geographical, and ecological representation (representation), necessary for their recovery. For ease of reading and space efficiency, after first use of the full name of a plant section, we will refer to it by its section number only.

TABLE 6—LAND USE, THREATS TO HABITAT, AND POTENTIAL SPECIAL MANAGEMENT CONSIDERATIONS FOR CRITICAL HABITAT UNITS DESIGNATED FOR THE 12 HAWAI'I ISLAND SPECIES

Plant section	*Drosophila* unit	General land use	Threats	Special management
Section 1	Unit 1	A, B, C, D, E, F, G	O, P, Q	S, T, U.
Section 2		A, B, C, D, E, F, H	O, P, Q, R	S, T, U.
Section 3		A, B, C, D, E, F, H	O, P, Q, R	S, T, U.
Section 4	Unit 7	A, B, C, D, E, F, H	O, P, Q, R	S, T, U.
Section 5	Unit 8	A, B, C, D, E, F, H	O, P, Q, R	S, T, U.
Section 6	Unit 6	A, B, C, D, E, F, H	O, P, Q, R	S, T, U.
Section 7		A, B, C, D, F, H	O, P, Q, R	S, T, U.
Section 8		A, E, F, G, H, I, J, K, L	O, P, Q	S, T.
Section 9		A, E, F, H, I, J	O, P, Q, R	S, T, U.
Section 10		A, B, C, D, E, F, G, H, M	O, P, Q, R	S, T, U.
Section 11	Unit 2	A, B, C, D, E, F, H, K, N	O, P, Q, R	S, T, U.
Section 12	Unit 9	A, B, C, D, F, H	O, P, Q, R	S, T, U.
	Unit 4	A, B, C, D, E, F, H	O, P, Q, R	S, T, U.
Section 13	Unit 5	A, B, C, D, E, F, G, H	O, P, Q, R	S, T, U.
Section 14	Unit 3	A, E, F, H, I, J	O, P, Q, R	S, T, U.

TABLE 6—LAND USE, THREATS TO HABITAT, AND POTENTIAL SPECIAL MANAGEMENT CONSIDERATIONS FOR CRITICAL HABITAT UNITS DESIGNATED FOR THE 12 HAWAIʻI ISLAND SPECIES—Continued

Plant section	*Drosophila* unit	General land use	Threats	Special management
Section 15		A, B, C, D, E, F, N	O, P, Q, R	S, T, U.
Section 16		A, B, C, D, E, F, N	O, P, Q, R	S, T, U.
Section 17		A, B, C, D, E, F, N	O, P, Q, R	S, T, U.
Section 18		A, B, C, D, E, F, N	O, P, Q, R	S, T, U.
Section 19		A, B, C, D, E, F, H	O, P, Q, R	S, T, U.

Definition of Codes Used in Table 6

General land use:
(A) Watershed protection
(B) Ungulate and invasive plant control
(C) Natural resource monitoring
(D) Rare species protection and research
(E) Public hunting
(F) Public use and recreation
(G) Education and outreach
(H) Fire control
(I) Natural resource conservation including monitoring invasive plants and animals
(J) Enhancement of native rare plant resources
(K) Cultural uses
(L) Personal gathering
(M) Public use including traditional and customary rights of Native Hawaiians
(N) Timber management
Threats:
(O) Habitat degradation due to rooting by feral ungulates
(P) Intrusion of ecosystem altering invasive plants
(Q) Changes in canopy cover due to plant disease
(R) Fire
Special management considerations (see **Special Management Considerations or Protection**, in text above for additional detail):
(S) Feral ungulate control
(T Measures to control spread of invasive plants
(U) Fire management planning and wildfire response

Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 1 and Drosophila digressa—Unit 1

Section 1 and *Drosophila digressa*—Unit 1 consist of wet forest ecosystem from ʻŌʻōkala to Maulua Nui on the northeastern slope of Maunakea. Lands within this section and unit include approximately 25 percent in Federal ownership, 65 percent in State ownership, and 9 percent in private/other ownership (see table 3, above). Section 1 is comprised of two units: Unit 3 is a critical habitat unit within unit Hawaii 3 (see 50 CFR 17.99(k)(10) through (14)), which was previously designated for other plant species; and Unit 52 is a newly proposed critical habitat unit depicted on Map 119. All State-owned lands in this section and unit are managed by the State of Hawaii as part of the Hilo Forest Reserve Humuʻula, Laupāhoehoe, and Pīhā Sections; the Laupāhoehoe Natural Area Reserve; and the Manowaialeʻe Forest Reserve. All Federal lands in this section and unit are managed by the Service within Hakalau Forest National Wildlife Refuge, Hakalau Forest Unit. For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats identified within this section and unit, see table 6, above (DLNR–DOFAW 2022, entire; DLNR and USDA 2016, p. 4; Service 2010, pp. 1–13, 1–33–1–34; Stewart 2010, entire). The State lands within this section and unit are managed under the Laupāhoehoe Forest Management Plan (DLNR and USDA 2016, entire) and the Mauna Kea Watershed Management Plan (Stewart 2010, entire). The Federal lands within this section and unit are managed under the Hakalau Forest National Wildlife Refuge Comprehensive Conservation Plan (Service 2010, pp. 2–20–2–40) and the Mauna Kea Watershed Management Plan (Stewart 2010, entire).

Section 1 is occupied by the plants *Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda,* and *Stenogyne cranwelliae.* This section and unit include the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. Section 1 is important because it has the last remaining areas inhabited by *Cyrtandra wagneri* and *Melicope remyi,* and one of the last remaining areas inhabited by *Cyanea tritomantha, Phyllostegia floribunda,* and *Stenogyne cranwelliae,* making it an essential area for maintaining the redundancy and representation necessary for species' conservation. Although Section 1 is not known to be occupied by the plants *Pittosporum hawaiiense* and *Schiedea diffusa* ssp. *macraei,* and *Drosophila digressa*—Unit 1 is not known to be occupied by *Drosophila digressa,* this section and unit contain unoccupied habitat that is essential for the conservation of these species because they (1) are habitat for these species, (2) provide at least one the physical or biological features essential for the conservation of each of these species, and (3) contribute to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, each plant species needs at least 10 populations, with at least 400 reproducing individuals per population for *Pittosporum hawaiiense* and 500 reproducing individuals per population for *Schiedea diffusa* ssp. *macraei* (Service 2022a, p. 43–44). *Drosophila digressa* needs at least 10 stable populations for recovery (Service 2022a, p. 49). Therefore, we are reasonably certain that this section and unit will contribute to the conservation of these species and that this section and unit contain one or more of the physical or biological features that are essential to the conservation of these species. Approximately 12,059 ac (4,880 ha) of this section and unit overlap designated critical habitat for the federally endangered plants *Clermontia peleana, Cyanea platyphylla, Cyrtandra giffardii, Cyrtandra tintinnabula,* and *Phyllostegia warshaueri* (see 68 FR 39624; July 2, 2003).

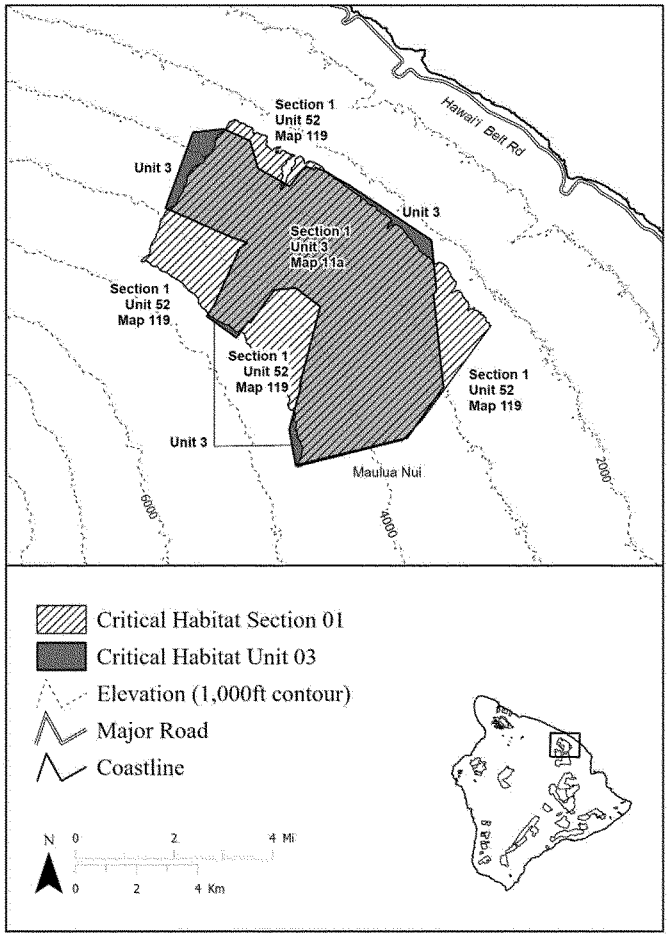


Figure 1. Area proposed as critical habitat for *Cyanea tritomantha*, *Cyrtandra wagneri*, *Melicope remyi*, *Phyllostegia floribunda*, *Pittosporum hawaiiense*, *Schiedea diffusa* ssp. *macraei*, *Stenogyne cranwelliae* in Section 1. Section 1 consists of multiple critical habitat units; a portion of an existing critical habitat unit on Hawai'i Island (Unit 3) and the area proposed as critical habitat on Hawai'i Island (Unit 52). Unit and map numbers for each section as published earlier (50 CFR 17.99(k)) are provided for ease of referencing.

Bidens hillebrandiana ssp. hillebrandiana—Section 2

Section 2 consists of coastal ecosystem from Pololū to Laupāhoehoe Iki on the northeastern slope of Kohala Mountain. Lands within this section include approximately 25 percent in State ownership and 75 percent in private/other ownership (see table 3, above). Section 2 is comprised of two units: Unit 6 is a critical habitat unit within unit Hawaii 6 (see 50 CFR 17.99(k)(25)), which was previously designated for another plant species; and Unit 53 is a newly proposed critical habitat unit depicted on Map 120. All State-owned lands in Section 2 are managed by the State of Hawaii as part of the Pololū Section of the Kohala Forest Reserve and the Pu'u o 'Umi Natural Area Reserve. The State lands within this section are managed under the Pu'u o 'Umi Management Plan (DLNR–DOFAW 1989, entire) and Kohala Mountain Watershed Management Plan Draft (Kohala Watershed Partnership [KWP] 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats identified within this section, see table 6, above (DLNR–DOFAW 1989, entire; KWP 2007, entire).

Section 2 is occupied by the plant *Bidens hillebrandiana* ssp. *hillebrandiana* and includes the coastal habitat, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the coastal ecosystem. This section is especially important because it is the last remaining area inhabited by the species, which makes it an important area for maintaining the redundancy and representation necessary for species' conservation. Approximately 2 ac (1 ha) of this section overlaps designated critical habitat for the federally endangered plant *Nothocestrum breviflorum* (see 68 FR 39624; July 2, 2003).

Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 3

Section 3 consists of wet forest and wet grassland and shrubland ecosystems from Kahua to Puʻukapu on Kohala Mountain. Lands within this section include approximately 88 percent in State ownership and 12 percent in private/other ownership (see table 3, above). Section 3 is comprised of three units: Unit 8 and Unit 9 are critical habitat units within unit Hawaii 8 and unit Hawaii 9 (see 50 CFR 17.99(k)(27) through (38)), which were previously designated for other plant species; and Unit 54 is a newly proposed critical habitat unit depicted on Map 121. All State-owned lands in this section are managed by the State of Hawaii as part of the Kohala Forest Reserve, Kohala Watershed Forest Reserve, and Puʻu o ʻUmi Natural Area Reserve. The State lands within this section are managed under the Puʻu o ʻUmi Management Plan (DLNR–DOFAW 1989, entire) and the Kohala Mountain Watershed Management Plan Draft (KWP 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats identified within this section, see table 6, above (DLNR–DOFAW 1989, entire; KWP 2007, entire).

Section 3 is occupied by the plants *Cyanea tritomantha, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae,* and includes the wet forest and wet grassland and shrubland ecosystems, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest and wet grassland and shrubland ecosystems. Although Section 3 is not known to be occupied by *Melicope remyi* or *Phyllostegia floribunda,* this section contains unoccupied habitat that is essential for the conservation of these species because they (1) are habitat for these species, (2) provide at least one the physical or biological features essential for the conservation of each of these species, and (3) contribute to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, each species needs at least 10 populations, with at least 200 reproducing individuals per population for *Melicope remyi* and at least 500 reproducing individuals per population for *Phyllostegia floribunda* (Service 2022a, p. 43–44). Therefore, we are reasonably certain that this section will contribute to the conservation of these species and that this section contains one or more of the physical or biological features that are essential to the conservation of these species. Approximately 6,938 ac (2,808 ha) of this section overlaps designated critical habitat for the federally endangered plants *Clermontia drepanomorpha, Phyllostegia warshaueri,* and *Achyranthes mutica* (see 68 FR 39624; July 2, 2003); and for the picture-wing fly *Drosophila ochrobasis* Units 3 (Kohala Mountains East) and 4 (Kohala Mountains West) (see 50 CFR 17.95(i) and 73 FR 73795, December 4, 2008).

Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 4 and Drosophila digressa—Unit 7

Section 4 and *Drosophila digressa*—Unit 7 consist of wet forest ecosystem from Kukuiopaʻe to ʻŌlelomoana on the southwestern slopes of Mauna Loa. Lands within this section and unit include approximately 89 percent in State ownership and 11 percent in private/other ownership (see table 3, above). Section 4 is comprised of two units: Unit 15 is a critical habitat unit within unit Hawaii 15 (see 50 CFR 17.99(k)(58) through (59)), which was previously designated for another plant species; and Unit 39 is a newly proposed critical habitat unit depicted on Map 108. All State-owned lands in this section and unit are managed by the State of Hawaii as part of the South Kona Forest Reserve Kukuiopaʻe Section. The State lands within this section and unit are managed under the Three Mountain Alliance Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats identified within this section and unit, see table 6, above (TMA 2007, pp. 26–37; DLNR–DOFAW 2022, entire).

Section 4 is occupied by the plants *Cyanea marksii, Phyllostegia floribunda,* and *Pittosporum hawaiiense.* This section and unit include the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. Although Section 4 is not known to be occupied by the plants *Schiedea diffusa* ssp. *macraei* and *Stenogyne cranwelliae,* and *Drosophila digressa*—Unit 7 is not known to be occupied by *Drosophila digressa,* this section and unit contain unoccupied habitat that is essential for the conservation of these species because they (1) are habitat for these species, (2) provide at least one the physical or biological features essential for the conservation of each of these species, and (3) contribute to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, *Schiedea diffusa* ssp. *macraei* needs at least 10 populations, with at least 500 reproducing individuals per population, and *Stenogyne cranwelliae* needs at least 20 populations, with at least 500 reproducing individuals per population (Service 2022a, p. 43–44). *Drosophila digressa* needs at least 10 stable populations for recovery (Service 2022a, p. 49). Therefore, we are reasonably certain that this section and unit will contribute to the conservation of these species and that this section and unit contain one or more of the physical or biological features that are essential to the conservation of these species. Approximately 182 ac (73 ha) of this section and unit overlap designated critical habitat for the federally endangered plant *Cyanea stictophylla* (68 FR 39624; July 2, 2003).

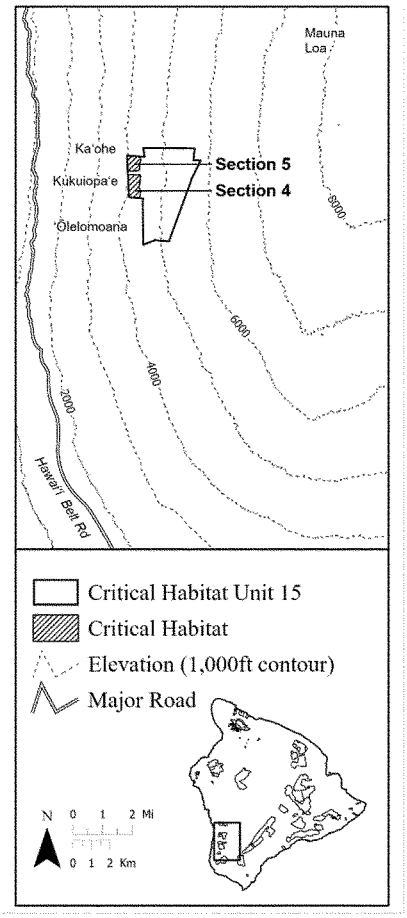


Figure 2. Area proposed as critical habitat for *Cyanea marksii*, *Phyllostegia floribunda*, *Pittosporum hawaiiense*, *Schiedea diffusa* ssp. *macraei*, and *Stenogyne cranwelliae* in the portion of Section 4 within Unit 15 and in the portion of Section 5 within Unit 15. Sections 4 and 5 both overlay Unit 15, which is an existing critical habitat unit on Hawai'i Island, but do not overlay each other.

Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 5 and Drosophila digressa—Unit 8

Section 5 and *Drosophila digressa*—Unit 8 consist of wet forest ecosystem in Ka'ohe on the southwestern slopes of Mauna Loa. Lands within this section and unit include approximately 53 percent in State ownership and 47 percent in private/other ownership (see table 3, above). Section 5 is comprised of two units: Unit 15 is a critical habitat unit within unit Hawaii 15 (see 50 CFR 17.99(k)(58) through (59)), which was previously designated for another plant species; and Unit 38 is a newly proposed critical habitat unit depicted on Map 107. All State-owned lands in this section and unit are managed by the State of Hawaii as part of the South Kona Forest Reserve, Ka'ohe Section and Kukuiopa'e Section. The State lands within this section and unit are managed under the Three Mountain Alliance Management Plan (TMA 2007, pp. 47–50). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats identified within this section and unit, see table 6, above (DLNR–DOFAW 2022, entire; TMA 2007, pp. 26–37).

Section 5 is occupied by the plant *Cyanea marksii.* This section and unit include the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. Although Section 5 is not known to be occupied by the plants *Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae,* and *Drosophila digressa*—Unit 8 is not known to be occupied by *Drosophila digressa,* this section and unit contain unoccupied habitat that is essential for the conservation of these species because they (1) are habitat for these species, (2) provide at least one the physical or biological features essential for the conservation of each of these species, and (3) contribute to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, *Phyllostegia floribunda, Pittosporum hawaiiense,* and *Schiedea diffusa* ssp. *macraei* each need at least 10 populations, with at least 500 reproducing individuals per population for *Phyllostegia floribunda* and *Schiedea diffusa* ssp. *macraei* and at least 400 reproducing individuals per population for *Pittosporum hawaiiense* (Service 2022a, p. 43–44). For *Stenogyne cranwelliae,* at least 20 populations, each with at least 500 reproducing

individuals, are necessary for recovery (Service 2022a, p. 43–44). *Drosophila digressa* needs at least 10 stable populations for recovery (Service 2022a, p. 49). Therefore, we are reasonably certain that this section and unit will contribute to the conservation of these species and that this section and unit contain one or more of the physical or biological features that are essential to the conservation of these species. Approximately 127 ac (51 ha) of this section and unit overlap designated critical habitat for the federally endangered plant *Cyanea stictophylla* (68 FR 39624; July 2, 2003).

Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 6 and Drosophila digressa—Unit 6

Section 6 and *Drosophila digressa*—Unit 6 consist of wet forest ecosystem in Kīpāhoehoe on the southwestern slopes of Mauna Loa. Lands within this section and unit include approximately 99.7 percent in State ownership and 0.3 percent in private/other ownership (see table 3, above). Section 6 is comprised of two units: Unit 16 is a critical habitat unit within unit Hawaii 16 (see 50 CFR 17.99(k)(60) through (61)), which was previously designated for another plant species; and Unit 40 is a newly proposed critical habitat unit depicted on Map 109. All State-owned lands in this section and unit are managed by the State of Hawaii as part of the Kīpāhoehoe Natural Area Reserve. The State lands within this section and unit are managed under the Kīpāhoehoe Natural Area Reserve Management Plan (DLNR–DOFAW 2002, entire) and the Three Mountain Alliance Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section and unit, see table 6, above (DLNR–DOFAW 2002, entire).

Section 6 is occupied by the plants *Cyanea marksii* and *Phyllostegia floribunda.* This section and unit include the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. Although Section 6 is not known to be occupied by *Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* or *Stenogyne cranwelliae,* and *Drosophila digressa*—Unit 6 is not known to be occupied by *Drosophila digressa,* this section and unit contain unoccupied habitat that is essential for the conservation of these species because they (1) are habitat for these species, (2) provide at least one the physical or biological features essential for the conservation of each of these species, and (3) contribute to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, *Pittosporum hawaiiense* and *Schiedea diffusa* ssp. *macraei* each need at least 10 populations, with at least 400 reproducing individuals per population for *Pittosporum hawaiiense* and at least 500 reproducing individuals per population for *Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* needs at least 20 populations, each with at least 500 reproducing individuals (Service 2022a, p. 43–44). *Drosophila digressa* needs at least 10 stable populations for recovery (Service 2022a, p. 49). Therefore, we are reasonably certain that this section and unit will contribute to the conservation of these species and that this section and unit contain one or more of the physical or biological features that are essential to the conservation of these species. Approximately 156 ac (63 ha) of this section and unit overlap designated critical habitat for the federally endangered plant *Cyanea stictophylla* (68 FR 39624; July 2, 2003).

Cyrtandra wagneri, Phyllostegia floribunda, Pittosporum hawaiiense—Section 7

Section 7 consists of wet forest and wet grassland and shrubland ecosystems from Pānau Nui to Kamoamoa on eastern slope of Kīlauea Volcano, entirely on Federal land (see table 3, above). Section 7 is comprised of two units: Unit 23 is a critical habitat unit within unit Hawaii 23 (see 50 CFR 17.99(k)(74) through (75)), which was previously designated for another plant species; and Unit 45 is a newly proposed critical habitat unit depicted on Map 114. Lands within this section are entirely under Federal ownership managed by the National Park Service within Hawai'i Volcanoes National Park. Federal lands within this section are managed by the National Park Service under the Hawai'i Volcanoes National Park General Management Plan (National Park Service 2015, 2016, entire) and the Three Mountain Alliance Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section, see table 6, above (National Park Service 2015, 2016, entire).

Section 7 is occupied by the plants *Phyllostegia floribunda* and *Pittosporum hawaiiense* and includes the wet forest and wet grassland and shrubland ecosystems, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest and wet grassland and shrubland ecosystems. Although Section 7 is not known to be occupied by *Cyrtandra wagneri,* this section contains unoccupied habitat that is essential for the conservation of this species because it (1) is habitat for this species, (2) provides at least one the physical or biological features essential for the conservation of this species, and (3) contributes to the area of habitat needed to reestablish wild populations within its range in support of recovery criteria. At least 10 populations, each with at least 500 reproducing individuals are necessary for recovery of *Cyrtandra wagneri* (Service 2022a, p. 43–44). Therefore, we are reasonably certain that this section will contribute to the conservation of this species and that this section contains one or more of the physical or biological features that are essential to the conservation of this species. Approximately 9 ac (4 ha) of this section overlaps designated critical habitat for the federally endangered plant *Pleomele hawaiiensis* (68 FR 39624; July 2, 2003).

Cyanea tritomantha, Cyrtandra wagneri, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 8

Section 8 consists of wet and mesic forest ecosystems from Nīnole to Pāhala on the southern slopes of Mauna Loa. Lands within this section include approximately 27 percent in Federal ownership, 66 percent in State ownership, and 8 percent in private/other ownership (see table 3, above). Section 8 is comprised of two units: Unit 24 is a critical habitat unit within unit Hawaii 24 (see 50 CFR 17.99(k)(76) through (81)), which was previously designated for another plant species; and Unit 44 is a newly proposed critical habitat unit depicted on Map 113. Federal lands in Section 8 are managed by the National Park Service within the Hawai'i Volcanoes National Park and in accordance with their Hawai'i Volcanoes National Park General Management Plan (National Park Service 2015, 2016, entire). All State-owned lands in this section are managed by the State of Hawaii, are part of the Ka'ū Forest Reserve, and are managed under the Ka'ū Forest Reserve Management Plan (DLNR–DOFAW 2012, entire). For general land use, threats, and special management considerations or protection measures to

reduce or alleviate the threats within Section 8, see table 6, above (DLNR–DOFAW 2012, p. 3; TMA 2007, pp. 44–46).

Section 8 is occupied by the plants *Cyanea tritomantha, Pittosporum hawaiiense,* and *Schiedea diffusa* ssp. *macraei* and includes the wet and mesic forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet and mesic forest ecosystems. Although Section 8 is not known to be occupied by the plants *Cyrtandra wagneri* or *Stenogyne cranwelliae,* this section contains unoccupied habitat that is essential for the conservation of these species because it (1) is habitat for these species, (2) provides at least one the physical or biological features essential for the conservation of each of these species, and (3) contributes to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, *Cyrtandra wagneri* needs at least 10 populations, each with at least 500 reproducing individuals, and *Stenogyne cranwelliae* needs at least 20 populations, each with at least 500 reproducing individuals (Service 2022a, p. 43–44). Therefore, we are reasonably certain that this section will contribute to the conservation of these species and that this section contains one or more of the physical or biological features that are essential to the conservation of these species. Approximately 2,081 ac (842 ha) of the section overlaps designated critical habitat for the federally endangered plant *Argyroxiphium kauense* (68 FR 39624; July 2, 2003) and for the picture-wing fly *Drosophila heteroneura* Unit 1 (Kaʻū Forest) (see 50 CFR 17.95(i) and 73 FR 73795, December 4, 2008).

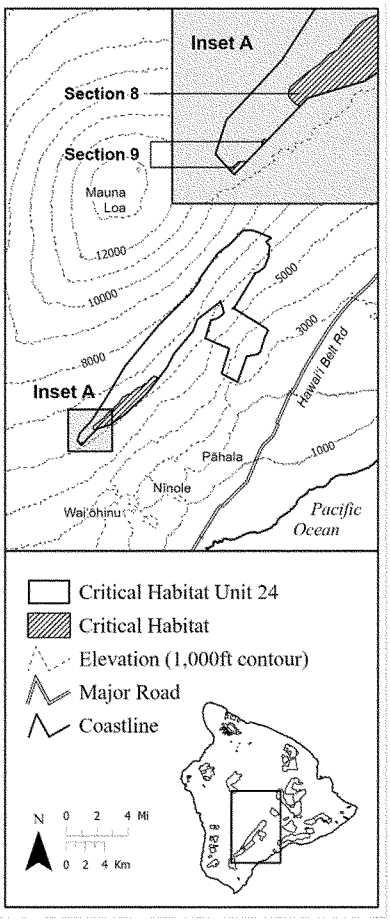


Figure 3. Area proposed as critical habitat for *Cyanea tritomantha*, *Cyrtandra wagneri*, *Pittosporum hawaiiense*, *Schiedea diffusa* ssp. *macraei*, and *Stenogyne cranwelliae* in the portion of Section 8 within Unit 24 and for *Cyrtandra wagneri*, *Pittosporum hawaiiense*, *Schiedea diffusa* ssp. *macraei*, and *Stenogyne cranwelliae* in the portion of Section 9 within Unit 24. Sections 8 and 9 both overlay Unit 24, which is an existing critical habitat unit on Hawai'i Island, but do not overlay each other.

Cyrtandra wagneri, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 9

Section 9 consists of wet and mesic forest ecosystems from Waiʻōhinu to Nīnole on the southern slopes of Mauna Loa. Lands within this section include approximately 29 percent in Federal ownership and 71 percent in State ownership (see table 3, above). Section 9 is comprised of two units: Unit 24 is a critical habitat unit within unit Hawaii 24 (see 50 CFR 17.99(k)(76) through (81)), which was previously designated for another plant species; and Unit 43 is a newly proposed critical habitat unit depicted on Map 112. Federal lands in Section 9 are managed by the National Park Service within the Hawaiʻi Volcanoes National Park and in accordance with their Hawaiʻi Volcanoes National Park General Management Plan (National Park Service 2015, 2016, entire). All State-owned lands in this section are managed by the State of Hawaii, are part of the Kaʻū Forest Reserve, and are managed under the Kaʻū Forest Reserve Management Plan (DLNR–DOFAW 2012, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section, see table 6, above (TMA 2007, pp. 26–37; DLNR–DOFAW 2012, pp. 1–3; DLNR 2017, pp. 3–5).

Section 9 is occupied by the plants *Pittosporum hawaiiense* and *Schiedea diffusa* ssp. *macraei* and includes the wet and mesic forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet and mesic forest ecosystems. Although Section 9 is not known to be occupied by *Cyrtandra wagneri* or *Stenogyne cranwelliae,* this section contains unoccupied habitat that is essential for the conservation of these species because it (1) is habitat for these species, (2) provides at least one the physical or biological features essential for the conservation of each of these species, and (3) contributes to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, *Cyrtandra wagneri* needs at least 10 populations, each with at least 500 reproducing individuals, and *Stenogyne cranwelliae* needs at least 20 populations, each with at least 500 reproducing individuals (Service 2022a, p. 43–44). Therefore, we are reasonably certain that this section will contribute to the conservation of these species and that this section contains one or more of the physical or biological features that are essential to the conservation of these species. Approximately 101 ac (41 ha) of this section overlap designated critical habitat for the federally endangered plant *Argyroxiphium kauense* (68 FR 39624; July 2, 2003) and for the picture-wing fly *Drosophila ochrobasis* Unit 5 (Upper Kahuku) (see 50 CFR 17.95(i) and 73 FR 73795, December 4, 2008).

Cyrtandra nanawaleensis, Cyrtandra wagneri, Phyllostegia floribunda—Section 10

Section 10 consists of wet forest and wet grassland and shrubland ecosystems from Kahaualeʻa to Wao Kele o Puna near the east rift zone of Kīlauea Volcano in the district of Puna. Lands within this section include approximately 100 percent in State ownership and less than 1 percent in private/other ownership (see table 3, above). Section 10 is comprised of two units: Unit 28 is a critical habitat unit within unit Hawaii 28 (see 50 CFR 17.99(k)(89)), which was previously designated for another plant species; and Unit 46 is a newly proposed critical habitat unit depicted on Map 115. Lands within this section are almost entirely under State ownership managed by the State of Hawaii within the Kahaualeʻa Natural Area Reserve and the State of Hawaii Office of Hawaiian Affairs within the Wao Kele o Puna Forest Reserve. The State lands within this section are managed under the Wao Kele o Puna Comprehensive Management Plan (Nālehualawakuʻulei 2017, entire) and the Three Mountain Alliance Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section, see table 6, above (DLNR–DOFAW 2022, entire; TMA 2007, pp. 26–37; Nālehualawakuʻulei 2017, entire).

Section 10 is occupied by the plants *Cyrtandra nanawaleensis* and *Phyllostegia floribunda* and includes the wet forest and wet grassland and shrubland, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest and wet grassland and shrubland ecosystems. Although Section 10 is not known to be occupied by *Cyrtandra wagneri,* this section contains unoccupied habitat that is essential for the conservation of this species because it (1) is habitat for this species, (2) provides at least one the physical or biological features essential for the conservation of this species, and (3) contributes to the area of habitat needed to reestablish wild populations within its range in support of recovery criteria. At least 10 populations, each with at least 500 reproducing individuals are necessary for recovery of *Cyrtandra wagneri* (Service 2022a, p. 43–44). Therefore, we are reasonably certain that this section will contribute to the conservation of this species and that this section contains one or more of the physical or biological features that are essential to the conservation of this species. Approximately 155 ac (63 ha) of this section overlaps designated critical habitat for the federally endangered plant *Adenophorus periens* (68 FR 39624; July 2, 2003).

Cyanea tritomantha, Cyrtandra wagneri, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 11 and Drosophila digressa—Unit 2

Section 11 and *Drosophila digressa*—Unit 2 consist of wet forest ecosystem from ʻŌlaʻa to Upper Waiākea on the eastern slope of Mauna Loa and partially on the northern slope of Kīlauea Volcano. Lands within this section and unit include approximately 25 percent in Federal ownership, 74 percent in State ownership, and 1 percent in private/other ownership (see table 3, above). Section 11 is comprised of three units: Unit 29 and Unit 30 are critical habitat units within unit Hawaii 29 and unit Hawaii 30 (see 50 CFR 17.99(k)(90) through (103)), which were previously designated for other plant species; and Unit 51 is a newly proposed critical habitat unit depicted on Map 118. All State-owned lands in this section and unit are managed by the State of Hawaii as part of the Hilo Forest Reserve Kūkūau Section, ʻŌlaʻa Forest Reserve Mountain View Section, Upper Waiākea Forest Reserve, Waiākea Forest Reserve, Puʻu Makaʻala Natural Area Reserve, and Waiākea 1942 Lava Flow Natural Area Reserve. All Federal lands in this section and unit are managed by the National Park Service within the Hawaiʻi Volcanoes National Park. The State lands within this section and unit are managed under the Puʻu Makaʻala Natural Area Reserve Management Plan (DLNR–DOFAW 2013, entire) and the Three Mountain Alliance's Management Plan (TMA 2007, entire). The Federal lands within this section and unit are managed under the Hawaiʻi Volcanoes National Park General Management Plan (National Park Service 2015, 2016, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section and unit, see table 6 (National Park

Service 2015, 2016, entire; DLNR–DOFAW 2013, p. 21; DLNR–DOFAW 2022, entire; TMA 2007, pp. 40–43).

Section 11 is occupied by the plants *Cyanea tritomantha, Phyllostegia floribunda, Pittosporum hawaiiense,* and *Schiedea diffusa* ssp. *macraei,* and *Drosophila digressa*—Unit 2 is occupied by the picture-wing fly *Drosophila digressa.* This section and unit include the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. Although Section 11 is not known to be occupied by *Cyrtandra wagneri* or *Stenogyne cranwelliae,* this section contains unoccupied habitat that is essential for the conservation of these species because it (1) is habitat for these species, (2) provides at least one the physical or biological features essential for the conservation of each of these species, and (3) contributes to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, *Cyrtandra wagneri* needs at least 10 populations, each with at least 500 reproducing individuals, and *Stenogyne cranwelliae* needs at least 20 populations, each with at least 500 reproducing individuals (Service 2022a, p. 43–44). Therefore, we are reasonably certain that this section will contribute to the conservation of these species and that this section contains one or more of the physical or biological features that are essential to the conservation of these species. Approximately 14,665 ac (5,935 ha) of this section and unit overlaps designated critical habitat for the federally endangered plants *Clermontia peleana, Cyanea stictophylla, Cyrtandra giffardii, Phyllostegia velutina,* and *Sicyos alba* (68 FR 39624; July 2, 2003), and for the picture-wing fly *Drosophila mulli* Unit 1 (Olaʻa Forest) and Unit 3 (Waiākea Forest) (see 50 CFR 17.95(i) and 73 FR 73795, December 4, 2008).

Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 12 and Drosophila digressa—Unit 9

Section 12 and *Drosophila digressa*—Unit 9 consist of wet forest ecosystem in Hoʻokena on the southwestern slopes of Mauna Loa. Newly proposed critical habitat for Section 12 is entirely within critical habitat Unit 37 depicted on Map 106 and includes approximately 100 percent Federal land with less than 1 ac (less than 1 ha) of land that is privately owned or has other ownership (see table 3, above). Lands within this section and unit are almost entirely managed by the Service within Hakalau Forest National Wildlife Refuge's Kona Forest Unit and in accordance with the Hakalau Forest National Wildlife Refuge Comprehensive Conservation Plan (Service 2010, pp. 2–13–2–19, 2–33–2–40). The State lands within this section and unit are managed under the Three Mountain Alliance Management Plan (TMA 2007, pp. 47–50). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section and unit, see table 6, above (Service 2010, entire; TMA 2007, pp. 26–37).

Section 12 is occupied by the plant *Cyanea marksii.* This section and unit include the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. Although Section 12 is not known to be occupied by *Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* or *Stenogyne cranwelliae,* and *Drosophila digressa*—Unit 9 is not known to be occupied by *Drosophila digressa,* this section and unit contain unoccupied habitat that is essential for the conservation of these species because they (1) are habitat for these species, (2) provide at least one the physical or biological features essential for the conservation of each of these species, and (3) contribute to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, *Phyllostegia floribunda* and *Schiedea diffusa* ssp. *macraei* each need at least 10 populations, with at least 500 reproducing individuals per population; *Pittosporum hawaiiense* needs at least 10 populations, each with at least 400 reproducing individuals; and *Stenogyne cranwelliae* needs at least 20 populations, each with at least 500 reproducing individuals (Service 2022a, p. 43–44). For (Service 2022a, p. 43–44). *Drosophila digressa* needs at least 10 stable populations for recovery (Service 2022a, p. 49). Therefore, we are reasonably certain that this section and unit will contribute to the conservation of these species and that this section and unit contain one or more of the physical or biological features that are essential to the conservation of these species. Approximately 1,482 ac (600 ha) of this section and unit overlap designated critical habitat for the picture-wing fly *Drosophila heteroneura* Unit 2 (Kona Refuge) (see 50 CFR 17.95(i) and 73 FR 73795, December 4, 2008).

Drosophila digressa—Unit 4

Drosophila digressa—Unit 4 consists of mesic forest ecosystem at Manukā on the southern slopes of Mauna Loa, with 100 percent of lands in State ownership (see table 3, above). All State-owned lands in this unit are managed by the State of Hawaii as part of the Manukā Natural Area Reserve, under the Manukā Natural Area Reserve Draft Management Plan (DLNR–DOFAW 1992, entire) and the Three Mountain Alliance Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this unit, see table 6, above (DLNR–DOFAW 1992, entire).

Drosophila digressa—Unit 4 is occupied by the picture-wing fly *Drosophila digressa* and includes the mesic forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the mesic forest ecosystem. This entire unit (167 ac, 67 ha) overlaps designated critical habitat (50 CFR 17.99(k)(64) through (69)) for the federally endangered plants *Colubrina oppositifolia, Diellia erecta* (now listed as *Asplenium dielerectum*), *Flueggea neowawraea, Gouania vitifolia, Neraudia ovata,* and *Pleomele hawaiiensis* (68 FR 39624; July 2, 2003).

Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 13 and Drosophila digressa—Unit 5

Section 13 and *Drosophila digressa*—Unit 5 consist of wet forest ecosystem from Kīpāhoehoe to Honomalino on the southwestern slopes of Mauna Loa. Lands within this section and unit include approximately 12 percent in State ownership and 88 percent in private/other ownership (see table 3, above). Newly proposed critical habitat for Section 13 is entirely within critical habitat Unit 41 depicted on Map 110. All State-owned lands in this section and unit are managed by the State of Hawaii as part of the Kīpāhoehoe Natural Area Reserve and South Kona Forest Reserve Kapua-Manukā Section. Some private lands are owned by The Nature Conservancy, within the Kona Hema Preserve. The State lands within this section and unit are managed under the Kīpāhoehoe Natural Area Reserve Management Plan (DLNR–DOFAW 2002, entire) and the Three Mountain Alliance Management Plan (TMA 2007, entire). The Nature Conservancy's land is managed under the Forest

Stewardship Management Plan for the Kona Hema Preserve (Giffin 2017, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section and unit, see table 6, above (DLNR–DOFAW 2002, entire).

Section 13 is occupied by the plants *Cyanea marksii, Phyllostegia floribunda,* and *Pittosporum hawaiiense.* This section and unit include the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. Although Section 13 is not known to be occupied by *Schiedea diffusa* ssp. *macraei* and *Stenogyne cranwelliae,* and *Drosophila digressa*—Unit 5 is not known to be occupied by *Drosophila digressa,* this section and unit contains unoccupied habitat that is essential for the conservation of these species because they (1) are habitat for these species, (2) provide at least one the physical or biological features essential for the conservation of each of these species, and (3) contribute to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, *Schiedea diffusa* ssp. *macraei* needs at least 10 populations, each with at least 500 reproducing individuals, and *Stenogyne cranwelliae* needs at least 20 populations, each with at least 500 reproducing individuals (Service 2022a, p. 43–44). *Drosophila digressa* needs at least 10 stable populations for recovery (Service 2022a, p. 49). Therefore, we are reasonably certain that this section and unit will contribute to the conservation of these species and that this section and unit contain one or more of the physical or biological features that are essential to the conservation of these species. There is no critical habitat for other endangered or threatened species within this section and unit.

Cyanea tritomantha, Cyrtandra wagneri, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 14 and Drosophila digressa—Unit 3

Section 14 and *Drosophila digressa*—Unit 3 are entirely overlapping and consist of wet and mesic forest ecosystems at Kahuku on the southern slopes of Mauna Loa. Newly proposed critical habitat for Section 14 is comprised of a single unit of newly proposed critical habitat, Unit 42 depicted on Map 111. Lands within this section and unit include approximately 100 percent in Federal ownership and less than 1 percent in State ownership (see table 3, above). Federal lands are managed by the National Park Service within the Hawai'i Volcanoes National Park in accordance with the Hawai'i Volcanoes National Park General Management Plan (National Park Service 2015, 2016, entire). All State-owned lands in this section and unit are managed by the State of Hawaii, are part of the Ka'ū Forest Reserve, and are managed under the Ka'ū Forest Reserve Management Plan (DLNR–DOFAW 2012, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section and unit, see table 6, above (TMA 2007, pp. 26–37; DLNR–DOFAW 2012, pp. 1–3; DLNR 2017, pp. 3–5).

Section 14 is occupied by the plants *Pittosporum hawaiiense* and *Schiedea diffusa* ssp. *macraei.* This section and unit include the wet and mesic forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet and mesic forest ecosystems. Although Section 14 is not known to be occupied by the plants *Cyanea tritomantha, Cyrtandra wagneri, Phyllostegia floribunda,* or *Stenogyne cranwelliae,* or by the picture-wing fly *Drosophila digressa* in *Drosophila digressa*—Unit 3, this section and unit contain unoccupied habitat that is essential for the conservation of these species because they (1) are habitat for these species, (2) provide at least one the physical or biological features essential for the conservation of each of these species, and (3) contribute to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, *Cyanea tritomantha, Cyrtandra wagneri,* and *Phyllostegia floribunda* each need at least 10 populations, with at least 500 reproducing individuals per population, and *Stenogyne cranwelliae* needs at least 20 populations, each with at least 500 reproducing individuals (Service 2022a, p. 43–44). *Drosophila digressa* needs at least 10 stable populations for recovery (Service 2022a, p. 49). Therefore, we are reasonably certain that this section and unit will contribute to the conservation of these species and that this section and unit contain one or more of the physical or biological features that are essential to the conservation of these species. Approximately 681 ac (275 ha) of this section and unit overlap designated critical habitat for the picture-wing fly *Drosophila heteroneura* Unit 3 (Lower Kahuku) (see 50 CFR 17.95(i) and 73 FR 73795, December 4, 2008).

Cyrtandra nanawaleensis—Section 15

Section 15 consists of wet forest ecosystem at Kamā'ili near the east rift zone of Kīlauea Volcano in the district of Puna. Lands within this section are entirely under State ownership managed by the State of Hawaii within the Keau'ohana Forest Reserve (see table 3, above). Section 15 is comprised of one unit: Unit 47, which is a newly proposed critical habitat unit depicted on Map 116. The State lands within this section are managed under the Three Mountain Alliance's Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section, see table 6, above (DLNR–DOFAW 2022, entire; TMA 2007, pp. 40–43).

Section 15 is occupied by the plant *Cyrtandra nanawaleensis* and includes the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. There is no critical habitat for other endangered or threatened species within the section.

Cyrtandra nanawaleensis—Section 16

Section 16 consists of wet forest ecosystem in Pāhoa near the east rift zone of Kīlauea Volcano in the district of Puna. Lands within this section include approximately 99 percent under State ownership and 1 percent in private/other ownership (see table 3, above). Section 16 is comprised of one unit: Unit 48, which is a newly proposed critical habitat unit depicted on Map 116. All State-owned lands in this section are managed by the State of Hawaii as part of the Nānāwale Forest Reserve, under the Three Mountain Alliance's Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section, see table 6, above (DLNR–DOFAW 2022, entire; TMA 2007, pp. 40–43).

Section 16 is occupied by the plant *Cyrtandra nanawaleensis* and includes the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. There is no critical habitat for other endangered or threatened species within the section.

Cyrtandra nanawaleensis—Section 17

Section 17 consists of wet and mesic forest and mesic grassland and shrubland ecosystems at Malama-Kī near the east rift zone of Kīlauea Volcano in the district of Puna. Lands within this section include approximately 99 percent under State ownership and 1 percent in private/other ownership (see table 3, above). Section 17 is comprised of one unit: Unit 49, which is a newly proposed critical habitat unit depicted on Map 117. State-owned lands within this section are managed by the State of Hawaii within the Malama-Kī Forest Reserve, under the Three Mountain Alliance's Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section, see table 6, above (DLNR–DOFAW 2022, entire; TMA 2007, pp. 40–43).

Section 17 is occupied by the plant *Cyrtandra nanawaleensis* and includes the wet forest, mesic forest, and mesic grassland and shrubland; the moisture regime; and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest, mesic forest, and mesic grassland and shrubland ecosystems. There is no critical habitat for other endangered or threatened species within the section.

Cyrtandra nanawaleensis—Section 18

Section 18 consists of wet and mesic forest and mesic grassland and shrubland ecosystems at Kapoho near the east rift zone of Kīlauea Volcano in the district of Puna. Lands within this section include approximately 99 percent under State ownership and 1 percent in private/other ownership (see table 3, above). Section 18 is comprised of one unit: Unit 50, which is a newly proposed critical habitat unit depicted on Map 117. State-owned lands within this section are managed by the State of Hawaii within the Nānāwale Forest Reserve Halepuaʻa section, under the Three Mountain Alliance's Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section, see table 6, above (DLNR–DOFAW 2022, entire; TMA 2007, pp. 40–43).

Section 18 is occupied by the plant *Cyrtandra nanawaleensis* and includes the wet forest, mesic forest, and mesic grassland and shrubland; the moisture regime; and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest, mesic forest, and mesic grassland and shrubland ecosystems. There is no critical habitat for other endangered or threatened species within the section.

Schiedea hawaiiensis—Section 19

Section 19 consists of dry forest ecosystems adjacent to the Pōhakuloa Training Area in the saddle of Maunakea, Mauna Loa, and Hualālai. Lands within this section are entirely in State ownership (see table 3, above). Proposed critical habitat for Section 19 is entirely within proposed critical habitat Unit 55 depicted on Map 122. The State-owned lands in this section include the Puʻu Anahulu Game Management Area and are managed under the Mauna Kea Watershed Management Plan (Stewart 2010, entire) and the Three Mountain Alliance Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section, see table 6, above (DLNR–DOFAW 2015, entire; TMA 2007, pp. 51–55).

Section 19 is not known to be occupied by *Schiedea hawaiiensis,* but this section includes the dry forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the dry forest ecosystems. This section also provides an area for potential population establishment, which is essential for the conservation of *Schiedea hawaiiensis* because 10 populations are identified as part of the recovery criteria, but only 1 wild population and 3 reintroduced populations are extant. Although Section 19 contains unoccupied habitat for *Schiedea hawaiiensis,* we have determined this area is essential for the conservation of this species because it (1) is habitat for this species, (2) provides at least one the physical or biological features essential for the conservation of this species, and (3) contributes to the area of habitat needed to reestablish wild populations within its range in support of recovery criteria. At least 10 populations, each with at least 500 reproducing individuals for, are necessary for recovery (Service 2022a, p. 43–44). Therefore, we are reasonably certain that this section will contribute to the conservation of this species and that this section contains one or more of the physical or biological features that are essential to the conservation of this species. Section 19 does not overlap with existing critical habitat for other listed 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. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

We published a final rule revising the definition of destruction or adverse modification on August 27, 2019 (84 FR 44976). Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, Tribal, local, or private lands that require a Federal permit ((such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act)) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat—and actions on State, Tribal, local, or private lands that are not federally funded, authorized, or carried out by a Federal agency—do not require section 7 consultation.

Compliance with the requirements of section 7(a)(2) is documented through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that may affect, and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we

provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define ''reasonable and prudent alternatives'' (at 50 CFR 402.02) as alternative actions identified during consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action,

(2) Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction,

(3) Are economically and technologically feasible, and

(4) Would, in the Service Director's opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 set forth requirements for Federal agencies to reinitiate 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: (a) if the amount or extent of taking specified in the incidental take statement is exceeded; (b) if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (c) if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence; or (d) if a new species is listed or critical habitat designated that may be affected by the identified action.

In such situations, Federal agencies sometimes may need to request reinitiation of consultation with us, but Congress also enacted some exceptions in 2018 to the requirement to reinitiate consultation on certain land management plans on the basis of a new species listing or new designation of critical habitat that may be affected by the subject federal action. See 2018 Consolidated Appropriations Act, Public Law 115–141, Div, O, 132 Stat. 1059 (2018).

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 physical or biological features essential to the conservation of a listed species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may violate section 7(a)(2) of the Act by destroying or adversely modifying such habitat, or that may be affected by such designation.

Activities that the Service may, during a consultation under section 7(a)(2) of the Act, consider likely to destroy or adversely modify critical habitat include, but are not limited to, Federal actions that result in the removal or significant modification of designated critical habitat, or that would pose a risk of fire. Such activities could include, but are not limited to, military training activities with potential to cause wildland fires. We anticipate that most Federal activities that may cause effects to critical habitat will also cause effects to the listed species, and as such we will already be in consultation with the Federal agency as to whether or not the activity jeopardizes the listed species. The exception is the one area proposed for critical habitat designation that is presently unoccupied by any of the listed species, Section 19, which is proposed for designation for *Schiedea hawaiiensis.* There, as there is not already a section 7 consultation nexus, the effects of a Federal proposed action that could remove physical or biological features essential to the conservation of the species—specifically, the associated native plant genera that are part of a functioning ecosystem in which *S. hawaiiensis* occurs or has historically occurred—would trigger section 7(a)(2) consultation because of the critical habitat designation. Within occupied areas, we do not anticipate recommending any project modifications to avoid destruction or adverse modification of critical habitat that would be different from those for avoiding jeopardy.

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 geographical 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. *Schiedea hawaiiensis* is the only species with an INRMP located within the range of its proposed critical habitat designation. The following area is DoD lands with a completed, Service-approved INRMP within the proposed critical habitat designation.

Approved INRMPs

Pōhakuloa Training Area, 132,193 ac (53,497 ha)

Pōhakuloa Training Area (PTA) is the sole installation under DoD jurisdiction on the island of Hawai'i. PTA is located in the north-central portion on the island of Hawai'i, west of the Humu'ula Saddle, in an area formed by the convergence of three volcanic mountains: Mauna Kea, Mauna Loa, and Hualālai. The PTA INRMP provides for wildlife management and habitat enhancement for four federally listed animal species and 20 federally listed plant species, including *Schiedea hawaiiensis,* found within PTA (PTA 2020, entire).

The current INRMP provides specific protections for *S. hawaiiensis*. Conservation actions to benefit *S. hawaiiensis* include collection and storage of seed from both wild and cultivated plants, propagation of plants from seed that are planted into suitable habitat off site, and quarterly monitoring of plants to gauge the efficacy of management actions. All known wild *S. hawaiiensis* individuals are protected in fenced enclosures and are monitored at least annually. Seeds from wild and propagated *S. hawaiiensis* plants have been collected and stored, and hundreds of propagated *S. hawaiiensis* individuals have been outplanted at PTA and in protected, off-site native habitats. With partnering agencies, PTA constructed 15 fenced units encompassing all known wild individuals of *S. hawaiiensis* in addition to other high-priority species. Combined, these units protect roughly 37,300 ac (15,095 ha) of predominantly native forest from ungulates. Invasive plants and rodents are also managed within these areas. The INRMP incorporates recommendations made in a 2008 biological opinion to reduce fire risk. For example, wildland fires caused by military training activities are minimized by managing vegetation along a system of fuel breaks and by controlling invasive grasses, which function as fine fuels, in buffers around *S. hawaiiensis* and other listed species.

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 PTA INRMP and that conservation efforts identified in the INRMP will provide a conservation benefit to *S. hawaiiensis.* Therefore, lands within this installation are exempt from critical habitat designation under section 4(a)(3) of the Act. We are not including approximately 22,730 ac (9,198 ha) of *S. hawaiiensis* habitat in this proposed critical habitat designation because of this exemption.

Consideration of Impacts Under Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from designated 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 (hereafter, the ''2016 Policy''; 81 FR 7226, February 11, 2016), 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). In a final rule, we explain each decision to exclude areas, as well as decisions not to exclude, to demonstrate that the decision is reasonable. Below, we provide information on the areas we are considering for exclusion.

In considering whether to exclude a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If the analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, the Secretary may exercise discretion to exclude the area only if such exclusion would not 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 are taking to consider each category of impacts and our analyses of the relevant impacts.

Consideration of Economic Impacts

Section 4(b)(2) of the Act and its implementing regulations require that we consider the economic impact that may result from a designation of critical habitat. To assess the probable economic impacts of a designation, we must first evaluate specific land uses or activities and projects that may occur in the area of the critical habitat. We then must evaluate the impacts that a specific critical habitat designation may have on restricting or modifying specific land uses or activities for the benefit of the species and its habitat within the areas proposed. We then identify which conservation efforts may be the result of the species being listed under the Act versus those attributed solely to the designation of critical habitat for the particular species. The probable economic impact of a proposed critical habitat designation is analyzed by comparing scenarios both ''with critical habitat'' and ''without critical habitat.''

The ''without critical habitat'' scenario represents the baseline for the analysis, which includes the existing regulatory and socio-economic burden imposed on landowners, managers, or other resource users potentially affected by the designation of critical habitat (*e.g.,* under the Federal listing as well as other Federal, State, and local regulations). Therefore, the baseline represents the costs of all efforts attributable to the listing of the species under the Act (*i.e.,* conservation of the species and its habitat incurred regardless of whether 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 would not be expected without 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 use when evaluating the benefits of inclusion and exclusion of particular areas from the final designation of critical habitat should we choose to conduct a discretionary 4(b)(2) exclusion analysis.

Executive Orders (E.O.s) 12866 and 13563 direct Federal agencies to assess the costs and benefits of available regulatory alternatives in quantitative (to the extent feasible) and qualitative terms. Consistent with the E.O. regulatory analysis requirements, our effects analysis under the Act may take into consideration impacts to both directly and indirectly affected entities, where practicable and reasonable. If sufficient data are available, we assess to the extent practicable the probable impacts to both directly and indirectly affected entities. Section 3(f) of E.O. 12866 identifies four criteria for when a regulation is considered a ''significant'' rulemaking, and requires additional

analysis, review, and approval if met. The criterion relevant here is whether the designation of critical habitat may have an economic effect of $100 million or more in any given year (section 3(f)(1)). Therefore, our consideration of economic impacts uses a screening analysis to assess whether a designation of critical habitat for the 12 Hawai'i species is likely to exceed the economically significant threshold.

For this particular designation, we developed an incremental effects memorandum (IEM) considering the probable incremental economic impacts that may result from this proposed designation of critical habitat. The information contained in our IEM was then used to develop a screening analysis of the probable effects of the designation of critical habitat for the 12 Hawai'i species (Industrial Economics, Incorporated 2022). We began by conducting a screening analysis of the proposed designation of critical habitat in order to focus our analysis on the key factors that are likely to result in incremental economic impacts. The purpose of the screening analysis is to filter out particular geographic areas of critical habitat that are already subject to such protections and are, therefore, unlikely to incur incremental economic impacts. In particular, the screening analysis considers baseline costs (*i.e.,* absent critical habitat designation) and includes any probable incremental economic impacts where land and water use may already be subject to conservation plans, land management plans, best management practices, or regulations that protect the habitat area as a result of the Federal listing status of the species. Ultimately, the screening analysis allows us to focus our analysis on evaluating the specific areas or sectors that may incur probable incremental economic impacts as a result of the designation. The presence of the listed species in occupied areas of critical habitat means that any destruction or adverse modification of those areas is also likely to jeopardize the continued existence of the species. Therefore, designating occupied areas as critical habitat typically causes little if any incremental impacts above and beyond the impacts of listing the species. Therefore, the screening analysis focuses on areas of unoccupied critical habitat. If there are any unoccupied units in the proposed critical habitat designation, the screening analysis assesses whether any additional management or conservation efforts may incur incremental economic impacts. This screening analysis combined with the information contained in our IEM constitute what we consider to be our draft economic analysis (DEA) of the proposed critical habitat designation for the 12 Hawai'i Island species; our DEA is summarized in the narrative below.

As part of our screening analysis, we considered the types of economic activities that are likely to occur within the areas likely affected by the critical habitat designation. In our evaluation of the probable incremental economic impacts that may result from the proposed designation of critical habitat for the 12 Hawai'i Island species, first we identified, in the IEM dated November 20, 2022, probable incremental economic impacts associated with conservation activities with a Federal nexus that aim to enhance survival or recovery of any of the 12 Hawai'i Island species. We considered the Federal involvement in these activities. Critical habitat designation generally will not affect activities that do not have any Federal involvement; under the Act, designation of critical habitat only affects activities conducted, funded, permitted, or authorized by Federal agencies. In areas where any of these 12 species are present, Federal agencies would be required to consult with the Service under section 7 of the Act on activities they fund, permit, or implement that may affect the species. If we also finalize this proposed critical habitat designation, Federal agencies would be required to consider the effects of their actions on the designated habitat, and if the Federal action may affect critical habitat, our consultations would include an evaluation of measures to avoid the destruction or adverse modification of critical habitat.

In our IEM, we attempted to clarify the distinction between the effects that would result from the species being listed and those attributable to the critical habitat designation (*i.e.,* difference between the jeopardy and adverse modification standards). The following specific circumstances in this case help to inform our evaluation: (1) The essential physical or biological features identified for critical habitat are the same features essential for the life requisites of the species, and (2) any actions that would likely adversely affect the essential physical or biological features of occupied critical habitat are also likely to adversely affect any one of the 12 Hawai'i Island species. The IEM outlines our rationale concerning this limited distinction between baseline conservation efforts and incremental impacts of the designation of critical habitat for these species. This evaluation of the incremental effects has been used as the basis to evaluate the probable incremental economic impacts of this proposed designation of critical habitat.

The proposed critical habitat designation for the 12 Hawai'i Island species includes 20 distinct areas, subdivided into 40 units, totaling approximately 122,277 ac (49,484 ha). Lands within the designation are under Federal (26 percent), State (67 percent) and private/other (7 percent) ownership. All units except one were occupied by one or more species at the time of listing. The single proposed unoccupied unit (*Schiedea hawaiiensis*—Section 19) is not expected to result in incremental costs. We evaluated the proposed DoD activities in the PTA adjacent to this proposed unit and rendered a ''no jeopardy'' biological opinion (Service 2013, entire). That biological opinion included conservation measures that address the risk of wildland fires as a result of the Federal proposed action, and as such, we do not expect that the designation of Section 19 as critical habitat adjacent to the PTA will result in the need for additional conservation measures. Overall, the incremental costs of designating critical habitat for the 12 Hawai'i Island species are likely to be limited to additional administrative effort in conducting the adverse modification analysis. This additional administrative effort will be part of those section 7 consultations already required because of the Federal action's effects to listed species.

The additional administrative effort associated with considering adverse modification during the section 7 consultation process was estimated using data regarding level of effort needed in past consultations, including efforts to provide technical assistance to Federal agencies short of requiring consultation, as well as efforts involving informal and formal consultation. We estimate up to six requests for technical assistance, one informal consultation, and two formal consultations annually over the next 10 years. The maximum annual cost associated with these consultations is estimated not to exceed $48,000 (2022 dollars). Therefore, the annual administrative burden is highly unlikely to exceed $100 million or be considered economically significant.

In many instances, critical habitat designation is not likely to change our recommendation for project modification during future consultations. However, in some instances, we may recommend modifications associated specifically with minimizing adverse effects in order to avoid activities that may result in a

determination of destruction or adverse modification of critical habitat.

For activities with a Federal nexus that would involve entry into critical habitat that is susceptible to rapid ʻōhiʻa death (ROD), we anticipate recommending disinfecting gear to limit the transmission of fungal pathogens associated with rapid ʻōhiʻa death and limiting access into pristine areas. ROD disinfecting protocols are part of best practices promoted by the Service and widely adopted by other agencies and conservation organizations. Therefore, the recommendations are unlikely to result in incremental costs because they are already part of standard protocols absent critical habitat.

In unpredictable cases, a Federal agency may need to act in response to volcanic activity to save human lives and would subsequently consult with the Service under emergency consultation provisions. Under those circumstances, we may determine that the emergency response may adversely modify critical habitat and recommend restoration activities to address the damage to habitat that would not be undertaken absent critical habitat. If time allows, the Service may also be involved in designing the emergency response in order to consider the potential for effects on critical habitat, for example, for emergency access road placement. Data are not available to forecast costs associated with modifications to or restoration activities following emergency response efforts during volcanic activity. Even if historical costs were available, the incremental costs associated with any given emergency response activity are likely to vary widely and be highly fact- and context-specific.

The probable incremental economic impacts of the critical habitat designations for the 12 Hawaiʻi Island species are expected to be limited to additional administrative effort as well as minor costs of conservation efforts resulting from a small number of future section 7 consultations. This limited incremental economic impact is due to two factors: (1) A large portion (94 percent) of the proposed critical habitat is occupied by one or more of the 12 Hawaiʻi Island species, and incremental economic impacts of critical habitat designation, other than administrative costs, are unlikely; and (2) in proposed areas that are not occupied by the 12 Hawaiʻi Island species (6 percent), no actions are anticipated that would result in a need for section 7 consultation or associated project modifications. At approximately $30,000 or less per consultation, the burden resulting from the designation of critical habitat for the 12 Hawaiʻi Island species, based on the anticipated annual number of consultations and associated consultation costs, is not expected to exceed a total of $48,000 in most years, across all affected parties, including the Service and other Federal agencies, and any other involved party. These costs incorporate requests for technical assistance and informal and formal consultation. We are not aware of any State or local regulations that would add additional requirements to private activities as a result of the Federal designation of critical habitat. Thus, the annual administrative burden is low.

Although we do not anticipate incremental costs outside of the section 7 consultation process, additional incremental costs may occur if landowners or buyers perceive that the designation of critical habitat will restrict land or water use activities in some way and, therefore, lower the value or use of the land. Although we acknowledge the potential for these types of speculation-based costs, the likelihood of these potential future effects is uncertain, and data with which to estimate incremental costs are unavailable. Similarly, there may be economic impacts associated with the perceived beneficial effects of critical habitat on land values. However, the likelihood and magnitude of those such effects are also uncertain.

In summary, while the specific costs of critical habitat designation for the 12 Hawaiʻi Island species are subject to uncertainty, it is unlikely that if adopted as proposed, the rulemaking will generate costs exceeding $100 million in a single year. Therefore, this proposed rule is unlikely to meet the threshold for an economically significant rule, with regard to costs, under E.O. 12866.

We are soliciting data and comments from the public on the DEA discussed above. During the development of a final designation, we will consider the information presented in the DEA and any additional information on economic impacts we receive during the public comment period to determine whether any specific areas should be excluded from the final critical habitat designation under authority of section 4(b)(2), our implementing regulations at 50 CFR 424.19, and the 2016 policy. We may exclude an area from critical habitat if we determine that the benefits of excluding the area outweigh the benefits of including the area, provided the exclusion will not result in the extinction of this species.

Consideration of National Security Impacts

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), then national-security or homeland-security concerns are not a factor in the process of determining what areas meet the definition of ''critical habitat.'' However, the Service must still consider impacts on national security, including homeland security, on those lands or areas not covered by section 4(a)(3)(B)(i) because section 4(b)(2) requires the Service to consider those impacts whenever it designates critical habitat. Accordingly, if DoD, Department of Homeland Security (DHS), or another Federal agency has requested exclusion based on an assertion of national-security or homeland-security concerns, or we have otherwise identified national-security or homeland-security impacts from designating particular areas as critical habitat, we generally have reason to consider excluding those areas.

However, we cannot automatically exclude requested areas. When DoD, DHS, or another Federal agency requests exclusion from critical habitat on the basis of national-security or homeland-security impacts, we must conduct an exclusion analysis if the Federal requester provides information, including a reasonably specific justification of an incremental impact on national security that would result from the designation of that specific area as critical habitat. That justification could include demonstration of probable impacts, such as impacts to ongoing border-security patrols and surveillance activities, or a delay in training or facility construction, as a result of compliance with section 7(a)(2) of the Act. If the agency requesting the exclusion does not provide us with a reasonably specific justification, we will contact the agency to recommend that it provide a specific justification or clarification of its concerns relative to the probable incremental impact that could result from the designation. If we conduct an exclusion analysis because the agency provides a reasonably specific justification or because we decide to exercise the discretion to conduct an exclusion analysis, we will defer to the expert judgment of DoD, DHS, or another Federal agency as to: (1) Whether activities on its lands or waters, or its activities on other lands or

waters, have national-security or homeland-security implications; (2) the importance of those implications; and (3) the degree to which the cited implications would be adversely affected in the absence of an exclusion. In that circumstance, in conducting a discretionary section 4(b)(2) exclusion analysis, we will give great weight to national-security and homeland-security concerns in analyzing the benefits of exclusion.

Under section 4(b)(2) of the Act, we also consider whether a national security or homeland security impact might exist on lands owned or managed by DoD or DHS. In preparing this proposal, we have determined that, other than the land exempted under section 4(a)(3)(B)(i) of the Act based upon the existence of an approved INRMP (see Exemptions, above), the lands within the proposed designation of critical habitat for the 12 Hawai'i Island species are not owned or managed by DoD or DHS. Therefore, we anticipate no impact on national security or homeland security.

Consideration of 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. 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 (HCPs), safe harbor agreements (SHAs), or candidate conservation agreements with assurances (CCAAs)—or whether there are non-permitted conservation agreements and partnerships that may be impaired by designation of, or exclusion from, critical habitat. In addition, we look at whether Tribal conservation plans or partnerships, Tribal resources, or government-to-government relationships of the United States with Tribal entities may be affected by the designation; we consider whether applicable conservation plans or partnerships with the Native Hawaiian community may be affected by the designation. We also consider any State, local, social, or other impacts that might occur because of the designation.

When analyzing other relevant impacts of including a particular area in a designation of critical habitat, we weigh those impacts relative to the conservation value of the particular area. To determine the conservation value of designating a particular area, we consider a number of factors, including, but not limited to, the additional regulatory benefits that the 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.

In the case of the 12 Hawai'i Island species, the benefits of critical habitat include public awareness of the presence of these species and the importance of habitat protection, and, where a Federal nexus exists, increased habitat protection for these species due to protection from destruction or adverse modification of critical habitat. Continued implementation of an ongoing management plan that provides conservation equal to or more than the protections that result from a critical habitat designation would reduce those benefits of including that specific area in the critical habitat designation. 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.

Watershed Partnerships

An important factor for our decision to consider an area for proposed exclusion is whether the landowner participates in a watershed partnership. In 2003, the State of Hawaii formally established the Hawai'i Association of Watershed Partnerships, which consists of more than 60 public and private landowners throughout the State, who are committed to long-term protection and conservation of watershed areas. These watershed partnerships each have a conservation management plan that is updated every several years to include measurable objectives and a budget. Financial support for the watershed partnerships include various long-term State funds and other Federal and private sources. Of the 10 watershed partnerships in operation, 3 have lands within the proposed critical habitat designation: Kohala Watershed Alliance, Mauna Kea Watershed Alliance, and Three Mountain Alliance. These watershed partnerships fund and conduct conservation efforts, including ungulate control and removal, and invasive weed management, that support the 12 Hawai'i Island species.

Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act

HCPs for incidental take permits under section 10(a)(1)(B) of the Act provide for partnerships with non-Federal entities to minimize and mitigate impacts to listed species and their habitats. In some cases, HCP permittees agree to do more for the conservation of the species and their habitats on private lands than designation of critical habitat would provide alone. We place great value on the partnerships that are developed during the preparation and implementation of HCPs.

CCAAs and SHAs are voluntary agreements designed to conserve candidate and listed species, respectively, on non-Federal lands. In exchange for actions that contribute to the conservation of species on non-Federal lands, participating property owners are covered by an ''enhancement of survival'' permit under section 10(a)(1)(A) of the Act, which authorizes incidental take of the covered species that may result from implementation of conservation actions, specific land uses, and, in the case of SHAs, the option to return to a baseline condition under the agreements. We also provide enrollees assurances that we will not impose further land-, water-, or resource-use restrictions, or require additional commitments of land, water, or finances, beyond those agreed to in the agreements.

When we undertake a discretionary section 4(b)(2) exclusion analysis based on permitted conservation plans (such as CCAAs, SHAs, and HCPs), we anticipate consistently excluding such areas if incidental take caused by the activities in those areas is covered by the permit under section 10 of the Act and the CCAA/SHA/HCP meets all of the following three factors (see the 2016 Policy for additional details):

a. The permittee is properly implementing the CCAA/SHA/HCP and is expected to continue to do so for the term of the agreement. A CCAA/SHA/HCP is properly implemented if the permittee is and has been fully implementing the commitments and provisions in the CCAA/SHA/HCP, implementing agreement, and permit.

b. The species for which critical habitat is being designated is a covered species in the CCAA/SHA/HCP, or very similar in its habitat requirements to a covered species. The recognition that the Services extend to such an agreement depends on the degree to

which the conservation measures undertaken in the CCAA/SHA/HCP would also protect the habitat features of the similar species.

c. The CCAA/SHA/HCP specifically addresses that species' habitat and meets the conservation needs of the species in the planning area.

The proposed critical habitat designation includes areas that are covered by a permitted plan providing for the conservation of the 12 Hawai'i Island species, as discussed below.

Safe Harbor Agreement Trustees of the Estate of Bernice P. Bishop, DBA Kamehameha Schools Keauhou and Kīlauea Forest Lands Hawai'i Island, Hawai'i (Kamehameha Schools Keauhou and Kīlauea Forest Lands Safe Harbor Agreement), June 2017—The permit holder for this SHA is Kamehameha Schools. Kamehameha Schools was established in 1887, through the will of Princess Bernice Pauahi Paki Bishop. Kamehameha Schools owns over 362,000 ac (146,496 ha) of land throughout Hawai'i, and part of Kamehameha Schools' mission is to protect Hawai'i's environment through recognition of the significant cultural value of this land and its unique flora and fauna. In 2017, the SHA was approved by the Service and Hawai'i Department of Land and Natural Resources for the Kamehameha School's Keauhou and Kīlauea Forest lands, which comprise 32,280 ac (13,063 ha) on the east slope of Mauna Loa Volcano, on the island of Hawai'i. Under the SHA, koa (*Acacia koa*) tree silviculture will be conducted, including stand improvement through selective harvest and establishment of new or improvement of existing forest in formerly logged areas and degraded pasture lands (Kamehameha Schools 2017, pp. 22–23). The conservation actions of Kamehameha Schools benefit habitat for *Cyanea tritomantha, Cyrtandra wagneri, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa* by promoting forest regeneration, which increases soil-water retention capacity and improves ecosystem resilience to drying climate conditions; controlling feral ungulates, which reduces trampling of and predation on these plants, including the host plants of *Drosophila digressa;* controlling weeds, which improves recruitment of native trees, including those that host *Drosophila digressa;* and taking actions that reduce the incidence of fire, which benefits forest habitat for these species by minimizing damage to that habitat by wildfire.

Non-Permitted Conservation Plans, Agreements, or Partnerships

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.

Shown below is a non-exhaustive list of factors that we consider in evaluating how non-permitted plans or agreements affect the benefits of inclusion or exclusion. These are not required elements of plans or agreements. Rather, they are some of the factors we may consider, and not all of these factors apply to every plan or agreement.

(i) The degree to which the record of the plan, or information provided by proponents of an exclusion, supports a conclusion that a critical habitat designation would impair the realization of the benefits expected from the plan, agreement, or partnership.

(ii) The extent of public participation in the development of the conservation plan.

(iii) The degree to which agency review and required determinations (*e.g.,* State regulatory requirements) have been completed, as necessary and appropriate.

(iv) Whether National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) compliance was required.

(v) The demonstrated implementation and success of the chosen mechanism.

(vi) The degree to which the plan or agreement provides for the conservation of the essential physical or biological features for the species.

(vii) Whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan or agreement will be implemented.

(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.

The proposed critical habitat designation includes areas that are covered by the following non-permitted management plans providing for the conservation of the 12 Hawai'i Island species:

Kamehameha Schools 'Āina Pauahi Natural Resources Management Program—Kamehameha Schools owns over 362,000 ac (146,496 ha) of land throughout Hawai'i. Part of Kamehameha Schools' mission is to protect Hawai'i's environment through recognition of the significant cultural value of this land and its unique flora and fauna. Accordingly, Kamehameha Schools established a sustainable stewardship policy to guide the use of its lands through their 'Āina Pauahi Natural Resources Management Program that includes the protection and conservation of natural resources, water resources, and ancestral places (Kamehameha Schools 2022, entire). Additionally, Kamehameha Schools is a member of the Mauna Kea Watershed Alliance and the Three Mountain Alliance. Between 2000 and 2015, Kamehameha Schools increased active stewardship of native ecosystems by over 35-fold, from 3,000 ac (1,124 ha) to 136,000 ac (55,037 ha); engaged in community collaborations to leverage external resources in support of culturally appropriate land stewardship; and developed and implemented its 2012 natural resource and cultural resource management plans representing Kamehameha Schools' responsibility to conduct prudent stewardship of the 'āina (land). Kamehameha Schools manages some of its forested lands for income generation through sustainable koa and 'iliahi or sandalwood (*Santalum album*) forestry and collaborates with county and other landowners in fire response planning to protect natural resources from fires. The conservation actions of Kamehameha Schools benefits habitat for *Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa* by promoting forest regeneration, which increases soil-water retention capacity and improves ecosystem resilience to drying climate conditions; controlling feral ungulates, which reduces trampling of and predation on these plants, including the host plants of *Drosophila digressa;* and controlling weeds, which improves recruitment of native trees for all these species. Fire suppression under this program benefits the coastal forest habitat where *Bidens hillebrandiana* ssp. *hillebrandiana* occurs by minimizing damage to this habitat by wildfire.

Mauna Kea Watershed Alliance—The Mauna Kea Watershed Alliance Watershed Partnership is a coalition of

private and public landowners and supporting agencies working to protect and restore watershed areas on Mauna Kea Volcano, Hawai'i (Mauna Kea Watershed Alliance 2022, entire). Lands that are managed by the Mauna Kea Watershed Alliance include over 500,000 ac (202,343 ha) on Mauna Kea Volcano on the island of Hawai'i. The Mauna Kea Watershed Alliance's shared vision is to protect and enhance watershed ecosystems, biodiversity, and natural resources through responsible management while promoting economic sustainability and providing recreational, subsistence, educational, and research opportunities. Staff of the Mauna Kea Watershed Alliance work cooperatively with members of the alliance to achieve this shared vision. Accordingly, fencing and ungulate control, control of introduced plants that are invasive, and reforestation efforts are conducted on lands within the Mauna Kea Watershed Alliance (Stewart 2010, p. viii). Ungulate control benefits habitat for *Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae* and *Drosophila digressa* by reducing trampling of and predation on these plants, including the host plants of *Drosophila digressa,* leading to improved forest regeneration. Nonnative plant control improves recruitment of native trees, including host plants of *Drosophila digressa,* and reforestation provides greater areas of native plant associations that contribute to habitat and increases soil-water retention capacity, improving ecosystem resilience to drying climate conditions.

Parker Ranch Sustainable Forestry Initiative—Parker Ranch was founded in 1847, and currently encompasses over 100,000 ac (40,469 ha) of land in the Hāmākua, North Kohala, and South Kohala Districts on Mauna Kea and the Kohala Mountains on the island of Hawai'i. Parker Ranch recognizes forest health as a key indicator of overall ecosystem health and, as result, announced in 2021 that it is seeking to collaborate with public and private partners to develop sustainable forestry programs on its lands (Parker Ranch 2021, entire). In 2018, Parker Ranch also hired a forestry manager to sustainably manage their forest lands (Parker Ranch 2021, pers. comm.). For its Waipunalei lands on the east slope of Mauna Kea, Parker Ranch is developing a sustainable koa forestry program and is seeking to rehabilitate forest areas damaged by history of cattle grazing (Parker Ranch 2022, pers. comm.). For its Waiemi lands on the Kohala Mountains, Parker Ranch is providing essential access and support to the State Department of Land and Natural Resources for priority watershed projects in Pu'u o Umi Natural Area Reserve and is supporting erosion control efforts above Pelekane Bay (Parker Ranch 2021, entire). Additionally, Parker Ranch is a member of the Mauna Kea Watershed Alliance. Koa forestry benefits forest habitat used by *Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa* by establishing new or improved forest in formerly logged areas and degraded pasture lands, increasing soil-water retention capacity, and improving ecosystem resilience to drying climate conditions through control of feral ungulates and weed control that improves recruitment of native trees, including the host plants of *Drosophila digressa.*

Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan, December 2007—The Kohala Watershed Partnership is a coalition of private and public landowners and supporting agencies whose goal is to show improvements in water and environmental quality by enabling comprehensive and sustainable watershed management projects that address the threats to the watershed, while maintaining its integrity and protecting its economic, socio-cultural, and ecological resources (Kohala Watershed Partnership [KWP] 2007, p. 3). Lands that are managed by Kohala Mountain Watershed Management Plan include approximately 68,000 ac (27,519 ha) of forest and grass lands on the windward and leeward slopes of the Kohala Volcano on the island of Hawai'i (KWP 2007, p. 3). Conservation measures of this plan benefit habitat for *Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* by promoting native forest and shrubland regeneration and increasing soil-water retention capacity through control of feral ungulates and weed control that improves recruitment of native trees and shrubs. Wildfire management and response benefits coastal forest, forest, and shrubland habitats used by these species by minimizing damage to these habitats by fire (KWP 2007, pp. 62–82).

Three Mountain Alliance Management Plan, December 31, 2007—The Three Mountain Alliance Watershed Partnership is a coalition of private and public landowners and supporting agencies that are working to protect and restore watershed areas on Hawai'i Island (Three Mountain Alliance Management Plan [TMA] 2007, entire). Lands that are managed by the Three Mountain Alliance are 1,116,300 ac (451,751 ha) on Mauna Loa, Kīlauea, and Hualālai Volcanoes or roughly 45 percent of the island of Hawai'i. Project funding for the Three Mountain Alliance currently comes from Three Mountain Alliance members (primarily the Service, Hawai'i's Division of Forestry and Wildlife, and Kamehameha Schools) and outside grants. Other Three Mountain Alliance members provide in-kind services to accomplish priority projects, for example, inmate labor or sharing personnel and equipment (TMA 2007, p. 56). Management under the Three Mountain Alliance Management Plan includes the following conservation actions: (1) strategic fencing and removal of ungulates; (2) regular monitoring for ungulates after fencing; (3) monitoring of habitat recovery; (4) surveys for rare taxa prior to new fence installations; (5) invasive, nonnative plant control; (6) reestablishment of native plant species; and (7) activities to reduce the threat of wildfire. Ungulate control reduces damage to native forests, including to host plants of *Drosophila digressa;* control of nonnative, invasive plants and out-planting of native plants, including host plants of *Drosophila digressa,* improves recruitment of native trees; and fire suppression activities reduce the damage from wildfires to habitats used by *Cyanea marksii, Cyanea tritomantha, Cyrtandra wagneri, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa.*

The Nature Conservancy Forest Stewardship Management Plan for the Kona Hema Preserve—The Nature Conservancy Kona Hema Preserve was established in 1999, in the South Kona District of the island of Hawai'i and is comprised of 8,076 ac (3,268 ha) in four management units. The management program for Kona Hema Preserve is documented in The Nature Conservancy's Forest Stewardship Management Plan for the Kona Hema Preserve, which details management measures to protect, restore, and enhance rare plants and animals and their habitats within the preserve and in adjacent areas (The Nature Conservancy 2017, entire). Primary management goals for the Kona Hema Preserve are to: (1) prevent degradation of native forest

and shrubland by reducing feral ungulate damage; (2) improve or maintain the integrity of native ecosystems in selected areas of the preserve by reducing the effects of nonnative plants; (3) conduct small mammal control and reduce the negative impacts of small mammals where possible; (4) monitor and track the biological and physical resources in the preserve, evaluate changes in these resources over time, and encourage biological and environmental research; (5) prevent extinction of rare species in the preserve; (6) build public understanding and support for the preservation of natural areas, and enlist volunteer assistance for preserve management; and (7) protect the resources from fires in and around the preserve (Giffin 2017, pp. 25–45). The Nature Conservancy is also a member of the Three Mountain Alliance. The conservation actions of The Nature Conservancy's Kona Hema Preserve benefit habitat for *Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa* by improved forest regeneration through control of feral ungulates, weed control that improves recruitment of native trees, including host plants of *Drosophila digressa,* and small mammal control (particularly rats (*Rattus* spp.), which reduces the potential for seed predation by rats on those plant species). Wildfire management and response also benefits forest habitat for *Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa* by minimizing damage to these habitats by wildfire.

After considering the factors described above, we have identified the areas that we have reason to consider excluding from the final designation of critical habitat because of non-permitted plans, agreements, or partnerships. Our consideration of an area for exclusion is based on all non-permitted plans, agreements, and/or partnerships for the area and the overall benefit these planning documents and associated conservation actions provide for the protection, maintenance, enhancement, and/or restoration of habitat for the 12 Hawai'i Island species. In all cases, we are considering excluding areas from the final designation where private landowners are actively participating in the restoration or management of habitats essential to conservation of these species, allowing surveys or monitoring of these species and their habitats, or taking steps to protect and increase numbers of these species that occur on their properties.

Specific benefits of conservation management and our rationale for considering exclusion are described below and summarized in table 7, below. Of the 40 proposed units, we are considering portions of six areas for exclusion under section 4(b)(2) of the Act, based on permitted and non-permitted plans and agreements. These areas total 4,224 ac (1,710 ha). We welcome any information regarding planning documents or other information we may have overlooked pertaining to the areas we are considering for exclusion and areas we are not considering for exclusion. We will work with landowners throughout this proposed rule's public comment period (see **DATES**, above) and during development of the final designation of critical habitat for the 12 Hawai'i Island species. We seek comments on whether the existing management and conservation efforts of landowners meet our criteria for exclusion from the final designation under section 4(b)(2) of the Act.

TABLE 7—AREAS CONSIDERED FOR EXCLUSION BY CRITICAL HABITAT UNIT

Plant section and unit	Drosophila unit	Landowner	Area owned that is being considered for exclusion		Associated plans and agreements
			Acres	Hectares	
Section 1, Unit 52 ...	Unit 1	Kamehameha Schools.	155	63	Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program; Mauna Kea Watershed Alliance; Mauna Kea Watershed Management Plan, April 2010.
Section 1, Unit 52 ...	Unit 1	Parker Ranch Waipunalei, LLC.	402	163	Parker Ranch's Sustainable Forestry Initiative; Mauna Kea Watershed Alliance.
Section 2, Unit 53 ...	.....	Kamehameha Schools.	33	13	Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program; Kohala Watershed Partnership; Kohala Mountain Watershed Management Plan, December 2007.
Section 2, Unit 53 ...	.....	Laupāhoehoe Nui ...	134	54	Kohala Watershed Partnership; Kohala Mountain Watershed Management Plan, December 2007.
Section 3, Unit 54 ...	.....	State Department of Hawaiian Home Lands.	35	14	Kohala Watershed Partnership; Kohala Mountain Watershed Management Plan, December 2007.
Section 3, Unit 54 ...	.....	Kahua Ranch	604	245	Kohala Watershed Partnership; Kohala Mountain Watershed Management Plan, December 2007.
Section 3, Unit 54 ...	.....	Kamehameha Schools.	177	72	Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program; Kohala Watershed Partnership; Kohala Mountain Watershed Management Plan, December 2007.
Section 3, Unit 54 ...	.....	Laupāhoehoe Nui ...	134	54	Kohala Watershed Partnership; Kohala Mountain Watershed Management Plan, December 2007.

TABLE 7—AREAS CONSIDERED FOR EXCLUSION BY CRITICAL HABITAT UNIT—Continued

Plant section and unit	Drosophila unit	Landowner	Area owned that is being considered for exclusion		Associated plans and agreements
			Acres	Hectares	
Section 3, Unit 54 ...	.....	Parker Ranch Waiemi, LLC.	349	141	Parker Ranch's Sustainable Forestry Initiative; Kohala Mountain Watershed Management Plan, December 2007.
Section 3, Unit 54 ...	.....	Queen Emma Foundation.	474	192	Kohala Watershed Partnership; Kohala Mountain Watershed Management Plan, December 2007.
Section 8, Unit 44 ...	.....	Kamehameha Schools.	649	263	Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program; Three Mountain Alliance Management Plan, December 31, 2007.
Section 11, Unit 51	Unit 2	Kamehameha Schools.	92	37	Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program; the Three Mountain Alliance Management Plan, December 31, 2007; Safe Harbor Agreement Trustees of the Estate of Bernice P. Bishop, Kamehameha Schools Keauhou and Kīlauea Forest Lands Safe Harbor Agreement, June 2017.
Section 13, Unit 41	Unit 5	The Nature Conservancy.	986	399	Forest Stewardship Management Plan for The Kona Hema Preserve; Three Mountain Alliance Management Plan, December 31, 2007.
Totals	.....	.....	4,224	1,710	

Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae*—Section 1 and *Drosophila digressa*—Unit 1; Kamehameha Schools—The Kamehameha Schools own 155 ac (63 ha) of land included in the proposed designation for the plant species within Section 1 and *Drosophila digressa*—Unit 1. Conservation management activities on these lands include those associated with the Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program, the Mauna Kea Watershed Alliance, and the Mauna Kea Watershed Management Plan, April 2010. For more information on the conservation actions of these groups and plans, see *Kamehameha Schools ʻAina Pauahi Natural Resources Management Program* and *Mauna Kea Watershed Alliance,* above. As described above, the conservation actions of Kamehameha Schools benefit habitat for *Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa.*

Based on Kamehameha Schools' management of its lands under the ʻĀina Pauahi Natural Resources Management Program; Mauna Kea Watershed Management Plan, April 2010; and Mauna Kea Watershed Alliance, we are considering excluding 155 ac (63 ha) of Kamehameha Schools lands within Section 1, Unit 52 and *Drosophila digressa*—Unit 1 from the final designation.

Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae*—Section 1 and *Drosophila digressa*—Unit 1; Parker Ranch Waipunalei, LLC—Parker Ranch owns 950 ac (384 ha) of land included in the proposed designation for the plant species within Section 1, of which 402 ac (163 ha) are within newly proposed critical habitat unit 52 and *Drosophila digressa*—Unit 1. We are not considering for exclusion the remaining portions of the 950 ac (384 ha) because these lands overlap existing critical habitat units. Conservation management activities on these 402 acres include those associated with Parker Ranch's Sustainable Forestry Initiative and Mauna Kea Watershed Alliance. For more information on the conservation actions of these groups and their plans, see *Parker Ranch's Sustainable Forestry Initiative* and *Mauna Kea Watershed Alliance,* above. As described above, the conservation measures of Parker Ranch, through its Sustainable Forestry Initiative, benefit habitat for *Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa.*

Based on Parker Ranch's management, Parker Ranch's Sustainable Forestry Initiative and participation in the Mauna Kea Watershed Alliance, we are considering excluding 402 acres of the Parker Ranch's lands within Section 1 and *Drosophila digressa*—Unit 1 from the final designation.

Bidens hillebrandiana ssp. *hillebrandiana*—Section 2; Kamehameha Schools—The Kamehameha Schools owns 33 ac (13 ha) of land included in the proposed designation for *Bidens hillebrandiana* ssp. *hillebrandiana* within Section 2. Conservation management activities on these lands include those associated with the Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program, Kohala Watershed Partnership, and the Kohala Mountain Watershed Management Plan, December 2007. For more information on the conservation actions of these groups and plans, see *Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program* and *Kohala Watershed Partnership and Kohala Mountain Watershed Management Plan,* above. As described above, the conservation actions of Kamehameha Schools benefit habitat for *Bidens hillebrandiana* ssp. *hillebrandiana.*

Based on Kamehameha Schools' management of its lands under the ʻĀina

Pauahi Natural Resources Management Program; Kohala Mountain Watershed Management Plan, December 2007; and Kohala Watershed Partnership, we are considering excluding Kamehameha Schools lands within Section 2 from the final designation.

Bidens hillebrandiana ssp. *hillebrandiana*—Section 2; Laupāhoehoe Nui, LLC—Laupāhoehoe Nui, LLC owns 134 ac (54 ha) of land included in the proposed designation for *Bidens hillebrandiana* ssp. *hillebrandiana* within Section 2. Conservation management activities on these lands include those associated with the Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan, December 2007.

Laupāhoehoe Nui, LLC, is a private corporation with a conservation land management purpose. Laupāhoehoe Nui, LLC, is a member of the Kohala Watershed Partnership. For more information on the conservation actions of the Kohala Watershed Partnership, see *Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan,* above. The conservation measures of Laupāhoehoe Nui, LLC, through the Kohala Mountain Watershed Management Plan benefit habitat used by *Bidens hillebrandiana* ssp. *hillebrandiana* as described above under *Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan, December 2007.*

Based on Laupāhoehoe Nui, LLC's management of its lands under the Kohala Mountain Watershed Management Plan, December 2007, and the Kohala Watershed Partnership, we are considering excluding Laupāhoehoe Nui, LLC, lands within Section 2 from the final designation.

Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae*—Section 3; Department of Hawaiian Home Lands—The Department of Hawaiian Home Lands owns 35 ac (14 ha) of land included in the proposed designation for the plant species within Section 3. Conservation management activities on these lands include those under Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan, December 2007.

The Department of Hawaiian Home Lands is a member of the Kohala Watershed Partnership. For more information on the conservation actions of the Kohala Watershed Partnership, see *Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan,* above. The conservation measures of the Department of Hawaiian Home Lands through the Kohala Mountain Watershed Management Plan benefit habitat used by *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* as described above under *Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan, December 2007.*

Based on the Department of Hawaiian Home Lands' management of its lands under the Kohala Mountain Watershed Management Plan, December 2007, and the Kohala Watershed Partnership, we are considering excluding lands of the Department of Hawaiian Home Lands within Section 3 from the final designation.

Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae*—Section 3; Kahua Ranch—Kahua Ranch owns 604 ac (245 ha) of land included in the proposed designation for the plant species within Section 3. Conservation management activities on these lands include those under Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan, December 2007.

Founded in 1928 by Atherton Richards, Kahua Ranch focused on cattle ranching activities. In addition to cattle ranch farming, Kahua Ranch also engages in tourism, which includes all-terrain vehicle (ATV) riding, horseback riding, and renting facilities for events. Kahua Ranch is a member of the Kohala Watershed Partnership. For more information on the conservation actions of the Kohala Watershed Partnership, see *Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan, December 2007,* above. Kahua Ranch, Kohala Watershed Partnership, and volunteers established the 270 ac (109 ha) Puʻu Pili Biodiversity Preserve (The Kohala Center 2019, p. 3), which includes 262 ac (106 ha) of this area considered for exclusion. The conservation measures of Kahua Ranch through the Kohala Mountain Watershed Management Plan benefit habitat used by *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* as described above under *Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan, December 2007.*

Based on the Kahua Ranch's management of its lands under the Kohala Mountain Watershed Management Plan, December 2007, and the Kohala Watershed Partnership, we are considering excluding Kahua Ranch lands within Section 3 from the final designation.

Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae*—Section 3; Kamehameha Schools—The Kamehameha Schools own 177 ac (72 ha) of land included in the proposed designation for the plant species within Section 3. Conservation management activities on these lands include those associated with the Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program, Kohala Watershed Partnership, and the Kohala Mountain Watershed Management Plan, December 2007. For more information on the conservation actions of these groups and plans, see *Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program* and *Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan,* above. As described above, the conservation actions of Kamehameha Schools benefit habitat for *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae.*

Based on Kamehameha Schools' management of its lands under the ʻĀina Pauahi Natural Resources Management Program; Kohala Mountain Watershed Management Plan, December 2007; and Kohala Watershed Partnership, we are considering excluding Kamehameha Schools lands within Section 3 from the final designation.

Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae*—Section 3; Laupāhoehoe Nui, LLC—Laupāhoehoe Nui, LLC, owns 134 ac (54 ha) of land included in the proposed designation for the plant species within Section 3. Conservation management activities on these lands include those associated with the Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan, December 2007.

Laupāhoehoe Nui, LLC, is a private corporation with a conservation land management purpose. Laupāhoehoe Nui, LLC, is a member of the Kohala Watershed Partnership. For more information on the conservation actions of these groups and their plans, see *Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan, December 2007,* above. Laupāhoehoe Nui, LLC, and the Kohala Watershed Partnership protected 2,000 ac (809 ha) at Upper Laupāhoehoe Nui Watershed Reserve, which includes

important aquifer recharge areas on Kohala Mountain, globally rare montane bog ecosystems, seabird nesting areas, and rare and endangered native plants (The Kohala Center 2019, p. 3); all 134 ac (54 ha) of this considered exclusion are within this protected area. The conservation measures of Laupāhoehoe Nui, LLC, through the Kohala Mountain Watershed Management Plan benefit habitat for *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* as described above under *Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan.*

Based on Laupāhoehoe Nui, LLC's management of its lands under the Kohala Mountain Watershed Management Plan, December 2007, and the Kohala Watershed Partnership, we are considering excluding Laupāhoehoe Nui, LLC, lands within Section 3 from the final designation.

Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae*—Section 3; Parker Ranch Waiemi, LLC—Parker Ranch owns 349 ac (141 ha) of land included in the proposed designation for the plant species within Section 3. Conservation management activities on these lands include those associated with Parker Ranch's Sustainable Forestry Initiative and the Kohala Mountain Watershed Management Plan, December 2007. For more information on the conservation actions of these groups and their plans, see *Parker Ranch Sustainable Forestry Initiative* and *Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan,* above.

Parker Ranch provides essential access and support to the State Department of Land and Natural Resources to install and maintain priority watershed projects in Puʻu o Umi Natural Area Reserve. The conservation measures of Parker Ranch through its Sustainable Forestry Initiative benefit habitat for *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* as described above under *Parker Ranch Sustainable Forestry Initiative* and *Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan.*

Based on Parker Ranch's management, Parker Ranch's Sustainable Forestry Initiative, and their participation in the Kohala Watershed Partnership, we are considering excluding Parker Ranch's lands within Section 3 from the final designation.

Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae*—Section 3; Queen Emma Foundation—The Queen Emma Foundation owns 474 ac (192 ha) of land included in the proposed designation for the plant species within Section 3. Conservation management activities on these lands include those under Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan, December 2007.

The Queen Emma Foundation is a nonprofit subsidiary of The Queen's Health Systems and manages more than 12,000 ac (4,856 ha) on the islands of Oʻahu and Hawaiʻi. The lands were handed down in trust by the Queen upon her death in 1885. The Queen Emma Foundation is a member of the Kohala Watershed Partnership. For more information on the conservation actions of the Kohala Watershed Partnership, see *Kohala Watershed Partnership and the Kohala Mountain Watershed Plan, December 2007,* above. The Queen Emma Foundation and Kohala Watershed Partnership implemented the Pelekane Bay Watershed Restoration Project on approximately 2,300 ac (930 ha) of Queen Emma Foundation lands, of which approximately 100 ac (40 ha) are within the area of this considered exclusion. The conservation measures of the Queen Emma Foundation through the Kohala Watershed Partnership benefit habitat used by *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* as described above under *Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan, December 2007.*

Based on the Queen Emma Foundation's management of its lands under the Kohala Mountain Watershed Management Plan, December 2007, and the Kohala Watershed Partnership, we are considering excluding Queen Emma Foundation lands within Section 3 from the final designation.

Cyanea tritomantha, Cyrtandra wagneri, Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae*—Section 8; Kamehameha Schools—The Kamehameha Schools own 649 ac (263 ha) of land included in the proposed designation for the plant species within Section 8. Conservation management activities on these lands include those associated with the Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program and the Three Mountain Alliance Management Plan, December 31, 2007. For more information on the conservation actions of these groups and their plans, see *Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program* and the *Three Mountain Alliance Management Plan, December 31, 2007,* above. As described above, the conservation actions of Kamehameha Schools benefit habitat for *Cyanea tritomantha, Cyrtandra wagneri, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae.*

Based on Kamehameha Schools' management of its lands under the ʻĀina Pauahi Natural Resources Management Program; Three Mountain Alliance Management Plan, December 31, 2007; and Three Mountain Alliance membership, we are considering excluding Kamehameha Schools lands within Section 8 from the final designation.

Cyanea tritomantha, Cyrtandra wagneri, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae*—Section 11 and *Drosophila digressa*—Unit 2; Kamehameha Schools—The Kamehameha Schools own 92 ac (37 ha) of land included in the proposed designation the plant species within Section 11 and *Drosophila digressa*—Unit 2. Conservation management activities on these lands include those associated with the Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program; the Three Mountain Alliance Management Plan, December 31, 2007; and the Safe Harbor Agreement Trustees of the Estate of Bernice P. Bishop, DBA Kamehameha Schools Keauhou and Kīlauea Forest Lands Hawaiʻi Island, Hawaiʻi (Kamehameha Schools Keauhou and Kīlauea Forest Lands Safe Harbor Agreement), June 2017. For more information on the conservation actions of these groups and plans, see *Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program; Three Mountain Alliance Management Plan, December 31, 2007;* and *Safe Harbor Agreement Trustees of the Estate of Bernice P. Bishop, DBA Kamehameha Schools Keauhou and Kīlauea Forest Lands Hawaiʻi Island, Hawaiʻi (Kamehameha Schools Keauhou and Kīlauea Forest Lands Safe Harbor Agreement), June 2017,* above. As described above, the conservation actions of Kamehameha Schools benefit habitat for *Cyanea tritomantha, Cyrtandra wagneri, Phyllostegia floribunda, Pittosporum hawaiiense,*

Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa.*

Based on Kamehameha Schools' management of its lands under the ʻĀina Pauahi Natural Resources Management Program; Three Mountain Alliance Management Plan, December 31, 2007; and Kamehameha Schools Keauhou and Kīlauea Forest Lands Safe Harbor Agreement, we are considering excluding Kamehameha Schools lands within Section 11 and *Drosophila digressa*—Unit 2 from the final designation.

Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae*—Section 13 and *Drosophila digressa*—Unit 5; The Nature Conservancy—The Nature Conservancy owns 986 ac (399 ha) of land included in the proposed designation for the plant species within Section 13 and *Drosophila digressa*—Unit 5. Conservation management activities on these lands include those associated with the Forest Stewardship Management Plan for The Kona Hema Preserve and the Three Mountain Alliance Management Plan, December 31, 2007. For more information on the conservation actions of these groups and their plans, see *The Nature Conservancy Forest Stewardship Management Plan for the Kona Hema Preserve* and *Three Mountain Alliance Management Plan, December 31, 2007,* above. As described above, the conservation actions of The Nature Conservancy's Kona Hema Preserve benefit habitat for *Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa.*

Based on The Nature Conservancy's management of the Kona Hema Preserve under the Forest Stewardship Management Plan for The Kona Hema Preserve and the Three Mountain Alliance Management Plan, December 31, 2007, we are considering excluding The Nature Conservancy's Kona Hema Preserve lands within Section 13 and *Drosophila digressa*—Unit 5 from the final designation.

We will continue to work with all entities identified above throughout this proposed rule's public comment period (see **DATES**, above) and during development of the final designation of critical habitat for the 12 species. We are currently seeking comment on whether the existing management and conservation efforts of each area identified above meet our criteria for exclusion from the final designation under section 4(b)(2) of the Act.

Summary of Exclusions Considered Under Section 4(b)(2) of the Act

In conclusion, we have reason to consider excluding the areas described in table 7, above, under section 4(b)(2) of the Act from the final critical habitat designation for the 12 species based on other relevant impacts.

We specifically solicit comments on the inclusion or exclusion of such areas. However, if through this proposed rule's public comment period we receive information that we determine indicates that there are potential economic, national security, or other relevant impacts from designating particular areas as critical habitat, then as part of developing the final designation of critical habitat, we will evaluate that information and may conduct a discretionary exclusion analysis to determine whether to exclude those areas under the authority of section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19. If we receive a request for exclusion of a particular area and after evaluation of supporting information we do not exclude, we will fully describe our decision in the final rule for this action.

Required Determinations

Clarity of the Rule

We are required by Executive Orders (E.O.s) 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

(1) Be logically organized;

(2) Use the active voice to address readers directly;

(3) Use clear language rather than jargon;

(4) Be divided into short sections and sentences; and

(5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in **ADDRESSES**. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget will review all significant rules. OIRA has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the Nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The Executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this proposed 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 whether potential economic impacts to these small entities are significant, we considered the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term ''significant economic impact'' is meant to apply to a typical small business firm's business operations.

Under the RFA, as amended, and as understood in light of recent court decisions, Federal agencies are required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself; in other words, the RFA does not require agencies to evaluate the potential impacts to indirectly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried out by the agency is not likely to destroy or adversely modify critical habitat. Therefore, under section 7, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Consequently, it is our position that only Federal action agencies would be directly regulated if we adopt the proposed critical habitat designation. The RFA does not require evaluation of the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities would be directly regulated by this rulemaking, the Service certifies that, if made final as proposed, the proposed critical habitat designation will not have a significant economic impact on a substantial number of small entities.

In summary, we have considered whether the proposed designation would result in a significant economic impact on a substantial number of small entities. For the above reasons and based on currently available information, we certify that, if made final, the proposed critical habitat designation would not have a significant economic impact on a substantial number of small business entities. Therefore, an initial 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 draft economic analysis, we did not find that this proposed critical habitat designation would significantly affect energy supplies, distribution, or use. The proposed critical habitat units are in remote wilderness areas that are not used for energy generation. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we make the following finding:

(1) This proposed rule would 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 are not likely to destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this proposed rule would significantly or uniquely affect small governments. Small governments would be affected only to the extent that any programs having Federal funds, permits, or other authorized activities must ensure that their actions will not adversely affect the critical habitat. Therefore, a Small Government Agency Plan is not required.

Takings—Executive Order 12630

In accordance with E.O. 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for the 12 Hawai'i Island species in a takings implications assessment. The Act does not authorize the Service to regulate private actions on private lands or confiscate private property as a result of critical habitat designation. Designation of critical habitat does not affect land ownership, or establish any closures, or restrictions on use of or access to the designated areas. Furthermore, the designation of critical habitat does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. However, Federal agencies are prohibited from carrying out, funding, or authorizing actions that would destroy or adversely modify critical habitat. A takings implications assessment has been completed for the proposed designation of critical habitat for 12 Hawai'i Island species, and it concludes that, if adopted, this

designation of critical habitat does not pose significant takings implications for lands within or affected by the designation.

Federalism—Executive Order 13132

In accordance with E.O. 13132 (Federalism), this proposed 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 proposed critical habitat designation with, appropriate State resource agencies. From a federalism perspective, the designation of critical habitat directly affects only the responsibilities of Federal agencies. The Act imposes no other duties with respect to critical habitat, either for States and local governments, or for anyone else. As a result, the proposed rule does not have substantial direct effects either on the States, or on the relationship between the Federal government and the States, or on the distribution of powers and responsibilities among the various levels of government. The proposed designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical or biological features of the habitat necessary for the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist State and local governments in long-range planning because they no longer have to wait for case-by-case section 7 consultations to occur.

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) of the Act would 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 E.O. 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the proposed rule would not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, this proposed rule identifies the physical or biological features essential to the conservation of the species. The proposed areas of critical habitat are presented on maps, and the proposed 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.)

Regulations adopted pursuant to section 4(a) of the Act are exempt from the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) and do not require an environmental analysis under NEPA. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This includes listing, delisting, and reclassification rules, as well as critical habitat designations. In a line of cases starting with *Douglas County* v. *Babbitt,* 48 F.3d 1495 (9th Cir. 1995), the courts have upheld this position.

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), E.O. 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 federally-recognized 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 proposed critical habitat for the 12 Hawai'i Island species, so no Tribal lands would be affected by the proposed designation.

References Cited

A complete list of references cited in this rulemaking is available on the internet at *https://www.regulations.gov* and upon request from the Pacific Islands Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this proposed rule are the staff members of the Fish and Wildlife Service's Species Assessment Team and the Pacific Islands Fish and Wildlife Office.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Plants, Reporting and recordkeeping requirements, Transportation, Wildlife.

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

■ 1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

■ 2. In § 17.11, in paragraph (h), amend the table ''List of Endangered and Threatened Wildlife'' by revising the entry for ''Fly, Hawaiian picture-wing'' (*Drosophila digressa*) under INSECTS to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
* *	* *	*	*	* *
		INSECTS		
* *	* *	*	*	* *
Fly, Hawaiian picture-wing	*Drosophila digressa*	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.95(i).[CH]
* *	* *	*	*	* *

■ 3. In § 17.12, in paragraph (h), amend the table ''List of Endangered and Threatened Plants'' by revising the entries for ''*Bidens hillebrandiana* ssp. *hillebrandiana*'', ''*Cyanea marksii*'', ''*Cyanea tritomantha*'', ''*Cyrtandra nanawaleensis*'', ''*Cyrtandra wagneri*'', ''*Melicope remyi*'' (as added February 2, 2023, at 88 FR 7134, and effective May 3, 2023), ''*Phyllostegia floribunda*'', ''*Pittosporum hawaiiense*'', ''*Schiedea diffusa* ssp. *macraei*'', ''*Schiedea hawaiiensis*'', and ''*Stenogyne cranwelliae*'' under FLOWERING PLANTS 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				
* *	*	*	*	* *
Bidens hillebrandiana ssp. *hillebrandiana.*	Kookoolau	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
* *	*	*	*	* *
Cyanea marksii	Haha	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
* *	*	*	*	* *
Cyanea tritomantha	Aku	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
* *	*	*	*	* *
Cyrtandra nanawaleensis	Haiwale	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
* *	*	*	*	* *
Cyrtandra wagneri	Haiwale	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
* *	*	*	*	* *
Melicope remyi	No common name	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
* *	*	*	*	* *
Phyllostegia floribunda	No common name	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
* *	*	*	*	* *
Pittosporum hawaiiense	Hoawa, haawa	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
* *	*	*	*	* *
Schiedea diffusa ssp. *macraei*	No common name	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
* *	*	*	*	* *
Schiedea hawaiiensis	Maolioli	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
* *	*	*	*	* *
Stenogyne cranwelliae	No common name	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
* *	*	*	*	* *

■ 4. In § 17.95, amend paragraph (i) by adding an entry for ''Hawaiian picture-wing fly (*Drosophila digressa*)'', following the entry for ''Hawaiian picture-wing fly (*Drosophila differens*)'' to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(i) * * *

Hawaiian picture-wing fly (*Drosophila digressa*)

(1) Critical habitat units are depicted for Hawaii County, Hawaii, on the maps in this entry.

(2) Within these areas, the physical or biological features essential to the conservation of Hawaiian picture-wing fly consist of the following components:

(i) In units 1, 2, 5, 6, 7, 8, and 9, the physical or biological features essential to the conservation of Hawaiian picture-wing fly, which are the features of the wet forest ecosystem, are:

(A) Elevation of less than 7,300 feet (ft) (2,225 meters (m)).

(B) Annual precipitation that is greater than 98 inches (in) (250 centimeters (cm)).

(C) Substrate of very weathered soils to rocky substrate, basaltic lava, undeveloped soils, or developed soils.

(D) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(E) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(F) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

(ii) In unit 3, the physical or biological features essential to the conservation of Hawaiian picture-wing fly, which are features of both the wet forest ecosystem and the mesic forest ecosystem, are the physical and biological features described in paragraph (2)(i)(A) through (F) of this entry for units 1, 2, 5, 6, 7, 8, and 9, and in paragraph (2)(iii)(A) through (F) of this entry for unit 4.

(iii) In unit 4, the physical or biological features essential to the conservation of Hawaiian picture-wing fly, which are features of the mesic forest ecosystem, are:

(A) Elevation of less than 6,600 ft (2,000 m).

(B) Annual precipitation of 39 to 150 in (100 to 380 cm).

(C) Substrate of rocky, shallow, organic muck soils; rocky talus soils; shallow soils over weathered rock; deep soils over soft weathered rock; or gravelly alluvium.

(D) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Charpentiera, Chrysodracon, Metrosideros, Myrsine, Nestegis, Pisonia, Santalum.*

(E) Subcanopy contains one or more of the following native plant genera: *Coprosma, Freycinetia, Leptecophylla, Myoporum, Pipturus, Rubus, Sadleria, Sophora.*

(F) Understory contains one or more of the following native plant genera: *Ctenitis, Doodia, Dryopteris, Pelea, Sadleria.*

(3) Existing humanmade features and structures, such as buildings, aqueducts, runways, roads, and other paved areas, and the land on which they are located existing within the legal boundaries are not included in the critical habitat designation.

(4) Data layers defining map units were created based on summaries of occurrences and landcover layers including habitat characteristics that indicate the physical or biological features essential to the conservation of the Hawaiian picture-wing fly. Coordinates were created using World Geodetic System 1984 (WGS84). The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at *https://www.regulations.gov* at Docket No. FWS–R1–ES–2023–0017, and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) Index map follows:

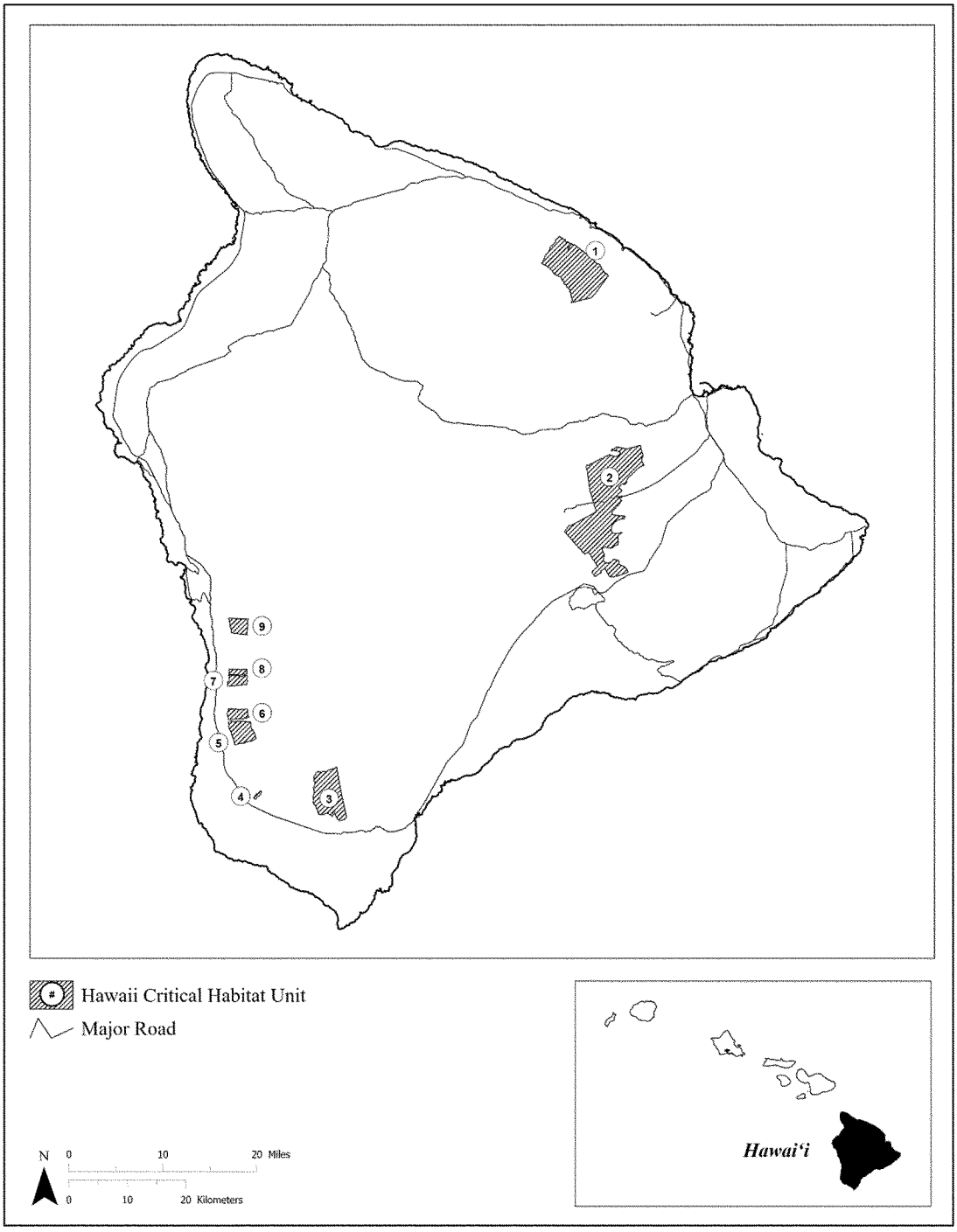
BILLING CODE 4333–15–P

Figure 1 to Hawaiian picture-wing fly (*Drosophila digressa*) paragraph (5)

Critical Habitat for *Drosophila digressa*

Hawaii Island, HI

Index Map


1
2
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Hawaii Critical Habitat Unit
Major Road
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0 10 20 Miles
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Hawai'i

(6) *Drosophila digressa*—Unit 1, Hawaii County, Hawaii.

(i) *Drosophila digressa*—Unit 1 consists of 16,272 ac (6,585 ha) of wet forest ecosystem from Ookala to Maulua Nui on the northeastern slope of Maunakea. Lands within this unit include approximately 4,097 ac (1,658 ha) in Federal ownership, 10,644 ac (4,307 ha) in State ownership, and 1,531 ac (619 ha) in private or other ownership. Federal lands within this unit are within the Hakalau Forest National Wildlife Refuge Hakalau Forest Unit. State lands within this unit are part of the Hilo Forest Reserve Humuula, Laupahoehoe, and Piha Sections; the Laupahoehoe Natural Area Reserve; and the Manowaialee Forest Reserve.

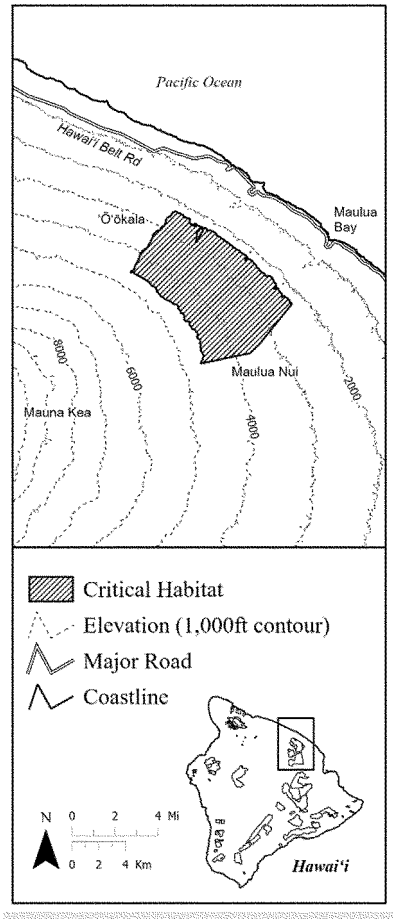
(ii) Map of *Drosophila digressa*—Unit 1 follows:

Figure 2 to Hawaiian picture-wing fly (*Drosophila digressa*) paragraph (6)(ii)

Critical Habitat for *Drosophila digressa*

Hawaii Island, HI

Unit 1



(7) *Drosophila digressa*—Unit 2, Hawaii County, Hawaii.

(i) *Drosophila digressa*—Unit 2 consists of 32,091 ac (12,987 ha) of wet forest ecosystem from Olaa to Upper Waiakea on the eastern slope of Mauna Loa and partially on the northern slope of Kilauea Volcano. Lands within this unit include approximately 7,877 ac (3,188 ha) in Federal ownership, 23,898 ac (9,671 ha) in State ownership, and 316 ac (128 ha) in private or other ownership. Federal lands in this unit are within the Hawaii Volcanoes National Park. State lands in this unit are part of the Hilo Forest Reserve Kukuau Section, Olaa Forest Reserve Mountain View Section, Upper Waiākea Forest Reserve, Waiākea Forest Reserve, Puu Makaala Natural Area Reserve, and Waiakea 1942 Lava Flow Natural Area Reserve.

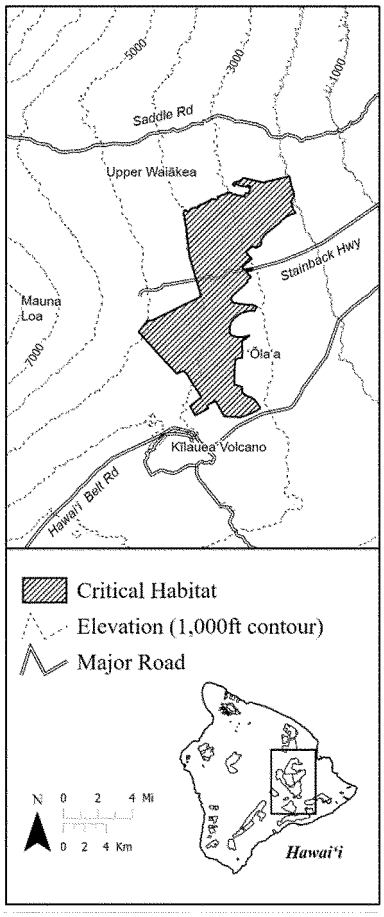
(ii) Map of *Drosophila digressa*—Unit 2 follows:

Figure 3 to Hawaiian picture-wing fly (*Drosophila digressa*) paragraph (7)(ii)

Critical Habitat for *Drosophila digressa*

Hawaii Island, HI

Unit 2



(8) *Drosophila digressa*—Unit 3, Hawaii County, Hawaii.

(i) *Drosophila digressa*—Unit 3 consists of 8,781 ac (3,554 ha) of wet and mesic forest ecosystems at Kahuku on the southern slopes of Mauna Loa. Lands within this unit include approximately 8,769 ac (3,549 ha) in Federal ownership and 12 ac (5 ha) in State ownership. Federal lands within this unit are within Hawaii Volcanoes National Park. State-owned lands in this unit are part of the Kaʻū Forest Reserve.

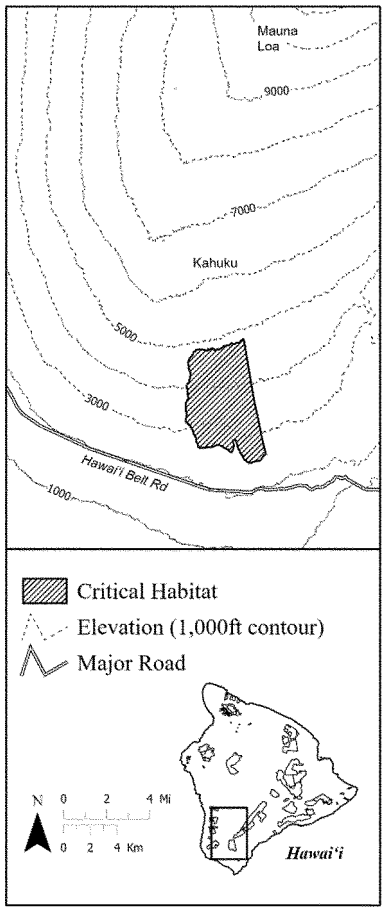
(ii) Map of *Drosophila digressa*—Unit 3 follows:

Figure 4 to Hawaiian picture-wing fly (*Drosophila digressa*) paragraph (8)(ii)

Critical Habitat for *Drosophila digressa*

Hawaii Island, HI

Unit 3



(9) *Drosophila digressa*—Unit 4, Hawaii County, Hawaii.

(i) *Drosophila digressa*—Unit 4 consists of 167 ac (67 ha) of mesic forest ecosystem at Manuka on the southern slopes of Mauna Loa. Lands within this unit are entirely in State ownership and are part of the Manuka Natural Area Reserve.

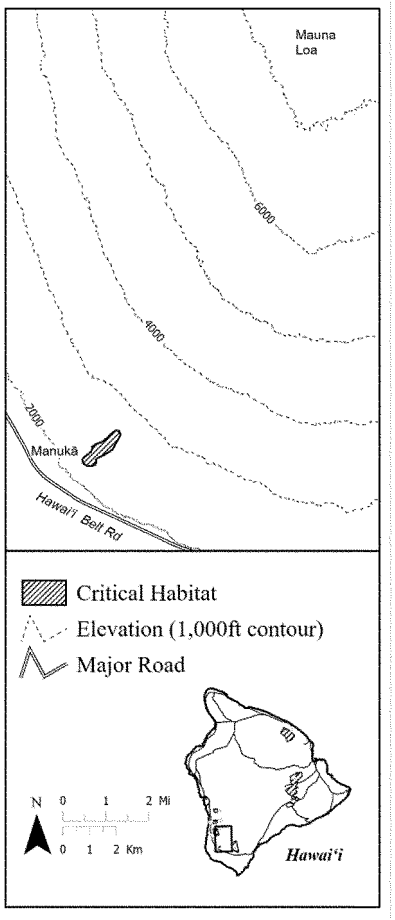
(ii) Map of *Drosophila digressa*—Unit 4 follows:

Figure 5 to Hawaiian picture-wing fly (*Drosophila digressa*) paragraph (9)(ii)

Critical Habitat for *Drosophila digressa*

Hawaii Island, HI

Unit 4



(10) *Drosophila digressa*—Unit 5, Hawaii County, Hawaii.

(i) *Drosophila digressa*—Unit 5 consists of 3,412 ac (1,381 ha) of wet forest ecosystem from Kipahoehoe to Honomalino on the southwestern slopes of Mauna Loa. Lands within this unit include approximately 411 ac (166 ha) in State ownership and 3,001 ac (1,214 ha) in private or other ownership . State-owned lands in this unit are part of the Kipahoehoe Natural Area Reserve and South Kona Forest Reserve Kapua-Manukā Section. Some private lands are owned by The Nature Conservancy, within the Kona Hema Preserve.

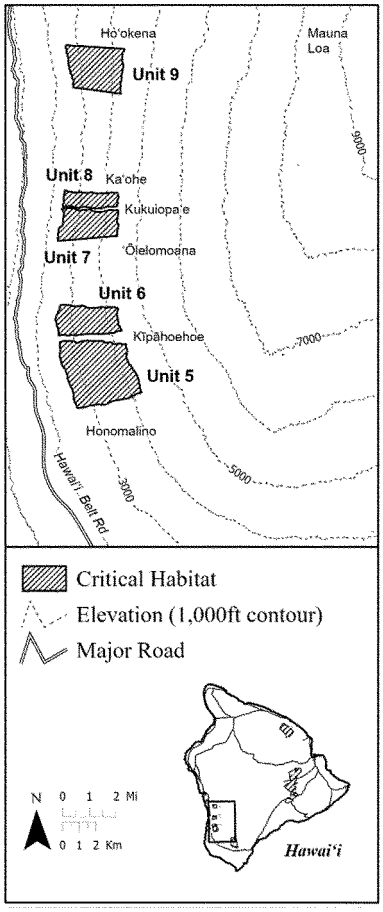
(ii) Map of *Drosophila digressa*—Unit 5, *Drosophila digressa*—Unit 6, *Drosophila digressa*—Unit 7, *Drosophila digressa*—Unit 8, and *Drosophila digressa*—Unit 9 follows:

Figure 6 to Hawaiian picture-wing fly (*Drosophila digressa*) paragraph (10)(ii)

Critical Habitat for *Drosophila digressa*

Hawaii Island, HI

Unit 5, Unit 6, Unit 7, Unit 8, and Unit 9



BILLING CODE 4333–15–C

(11) *Drosophila digressa*—Unit 6, Hawaii County, Hawaii.

(i) *Drosophila digressa*—Unit 6 consists of 1,399 ac (566 ha) of wet forest ecosystem in Kipahoehoe on the southwestern slopes of Mauna Loa. Lands within this unit include approximately 1,395 ac (565 ha) in State ownership and 4 ac (2 ha) in private or other ownership. State-owned lands in this unit are managed by the State of Hawaii as part of the Kipahoehoe Natural Area Reserve.

(ii) Map of *Drosophila digressa*—Unit 6 is provided at paragraph (10)(ii) of this entry.

(12) *Drosophila digressa*—Unit 7, Hawaii County, Hawaii.

(i) *Drosophila digressa*—Unit 7 consists of 1,346 ac (545 ha) of wet forest ecosystem from Kukuiopae to Olelomoana on the southwestern slopes of Mauna Loa. Lands within this unit include approximately 1,202 ac (486 ha) in State ownership and 144 ac (58 ha) in private or other ownership. State-owned lands in this unit are part of the South Kona Forest Reserve Kukuiopae Section.

(ii) Map of *Drosophila digressa*—Unit 7 is provided at paragraph (10)(ii) of this entry.

(13) *Drosophila digressa*—Unit 8, Hawaii County, Hawaii.

(i) *Drosophila digressa*—Unit 8 consists of 661 ac (267 ha) of wet forest ecosystem in Kaohe on the southwestern slopes of Mauna Loa. Lands within this unit include approximately 353 ac (143 ha) in State ownership and 308 ac (125 ha) in private or other ownership. State-owned lands in this unit are part of the South Kona Forest Reserve, Kaohe Section and Kukuiopae Section.

(ii) Map of *Drosophila digressa*—Unit 8 is provided at paragraph (10)(ii) of this entry.

(14) *Drosophila digressa*—Unit 9, Hawaii County, Hawaii.

(i) *Drosophila digressa*—Unit 9 consists of 1,906 ac (771 ha) of wet forest ecosystem in Hookena on the southwestern slopes of Mauna Loa. Lands within this unit include 1,906 ac (771 ha) of Federal land within Hakalau Forest National Wildlife Refuge Kona Forest Unit and less than 1 ac (less than 1 ha) of land that is privately owned or has other ownership.

(ii) Map of *Drosophila digressa*—Unit 9 is provided at paragraph (10)(ii) of this entry.

* * * * *

■ 5. Amend § 17.99 by:

■ a. Revising paragraphs (k) introductory text and (k)(1);

■ b. Redesignating paragraphs (k)(115) and (116) as paragraphs (k)(248) and (249), respectively;

■ c. Redesignating paragraphs (k)(12) through (114) as paragraphs (k)(13) through (115), respectively;

■ d. Adding a new paragraph (k)(12);

■ e. Redesignating newly redesignated paragraphs (k)(15) through (115) as paragraphs (k)(18) through (118), respectively;

■ f. Adding new paragraphs (k)(15) through (17);

■ g. Redesignating newly redesignated paragraphs (k)(19) through (118) as paragraphs (k)(22) through (121), respectively;

■ h. Adding new paragraphs (k)(19) through (21);

■ i. Redesignating newly redesignated paragraphs (k)(32) through (121) as paragraphs (k)(33) through (122), respectively;

■ j. Adding a new paragraph (k)(32);

■ k. Redesignating newly redesignated paragraphs (k)(36) through (122) as paragraphs (k)(39) through (125), respectively;

■ l. Adding new paragraphs (k)(36) through (38);
■ m. Redesignating newly redesignated paragraphs (k)(40) through (125) as paragraphs (k)(43) through (128), respectively;
■ n. Adding new paragraphs (k)(40) through (42);
■ o. Redesignating newly redesignated paragraphs (k)(53) through (128) as paragraphs (k)(59) through (134), respectively;
■ p. Adding new paragraphs (k)(53) through (58);
■ q. Redesignating newly redesignated paragraphs (k)(79) through (134) as paragraphs (k)(81) through (136), respectively;
■ r. Adding new paragraphs (k)(79) and (80);
■ s. Redesignating newly redesignated paragraphs (k)(82) through (136) as paragraphs (k)(90) through (144), respectively;
■ t. Redesignating newly redesignated paragraphs (k)(91) through (144) as paragraphs (k)(92) through (145), respectively;
■ u. Adding a new paragraph (k)(91);
■ v. Redesignating newly redesignated paragraphs (k)(93) through (145) as paragraphs (k)(97) through (149), respectively;
■ w. Adding new paragraphs (k)(93) through (96);
■ x. Redesignating newly redesignated paragraphs (k)(109) through (149) as paragraphs (k)(112) through (152), respectively;
■ y. Adding new paragraphs (k)(109) through (111);
■ z. Redesignating newly redesignated paragraphs (k)(117) through (152) as paragraphs (k)(120) through (155), respectively;
■ aa. Adding new paragraphs (k)(117) through (119);
■ bb. Redesignating newly redesignated paragraphs (k)(122) through (155) as paragraphs (k)(124) through (157), respectively;
■ cc. Adding new paragraphs (k)(122) and (123);
■ dd. Redesignating newly redesignated paragraphs (k)(125) through (157) as paragraphs (k)(129) through (161), respectively;
■ ee. Adding new paragraphs (k)(125) through (128);
■ ff. Redesignating newly redesignated paragraphs (k)(137) through (161) as paragraphs (k)(140) through (164), respectively;
■ gg. Adding new paragraphs (k)(137) through (139);
■ hh. Redesignating newly redesignated paragraphs (k)(142) through (164) as paragraphs (k)(143) through (165), respectively;
■ ii. Adding a new paragraph (k)(142);
■ jj. Redesignating newly redesignated paragraphs (k)(145) through (165) as paragraphs (k)(150) through (170), respectively;
■ kk. Adding new paragraphs (k)(145) through (149);
■ ll. Redesignating newly redesignated paragraphs (k)(155) through (170) as paragraphs (k)(156) through (171), respectively;
■ mm. Adding a new paragraph (k)(155);
■ nn. Redesignating newly redesignated paragraphs (k)(157) through (171) as paragraphs (k)(159) through (173), respectively;
■ oo. Adding new paragraphs (k)(157) and (158);
■ pp. Redesignating newly redesignated paragraphs (k)(161) through (173) as paragraphs (k)(162) through (174), respectively;
■ qq. Adding a new paragraph (k)(161);
■ rr. Redesignating newly redesignated paragraphs (k)(163) through (174) as paragraphs (k)(164) through (175), respectively;
■ ss. Adding a new paragraph (k)(163);
■ tt. Redesignating newly redesignated paragraphs (k)(165) through (175) as paragraphs (k)(166) through (176), respectively;
■ uu. Adding a new paragraph (k)(165);
■ vv. Adding new paragraphs (k)(177) through (247);
■ ww. Revising newly redesignated paragraph (k)(248); and
■ xx. In paragraph (l)(1), adding in alphabetical order entries for ''Family Asteraceae: *Bidens hillebrandiana* ssp. *hillebrandiana* (KOOKOOLAU)'', ''Family Campanulaceae: *Cyanea marksii* (HAHA)'', ''Family Campanulaceae: *Cyanea tritomantha* (AKU)'', ''Family Caryophyllaceae: *Schiedea diffusa* ssp. *macraei* (no common name)'', ''Family Caryophyllaceae: *Schiedea hawaiiensis* (MAOLIOLI)'', ''Family Gesneriaceae: *Cyrtandra nanawaleensis* (HAIWALE)'', Family Gesneriaceae: *Cyrtandra wagneri* (HAIWALE)'', ''Family Lamiaceae: *Phyllostegia floribunda* (no common name)'', ''Family Lamiaceae: *Stenogyne cranwelliae* (no common name)'', ''Family Pittosporaceae: *Pittosporum hawaiiense* (HOAWA, HAAWA)'', and ''Family Rutaceae: *Melicope remyi* (no common name)''.

The revisions and additions read as follows:

§ 17.99 Critical habitat; plants on the Hawaiian Islands, HI.

* * * * *

(k) *Maps and critical habitat unit descriptions for the island of Hawaii, HI.* Critical habitat units are described below. Coordinates were created using World Geodetic System 1984 (WGS84). The following map shows the general locations of the critical habitat units designated on the island of Hawaii. Existing humanmade features and structures, such as buildings, aqueducts, runways, roads, and other paved areas, and the land on which they are located existing within the legal boundaries are not included in the critical habitat designation. Federal actions limited to those areas, therefore, would not trigger a consultation under section 7 of the Act unless they may affect the species or physical or biological features in adjacent critical habitat.

(1) Note: Map 1, Index map, follows:

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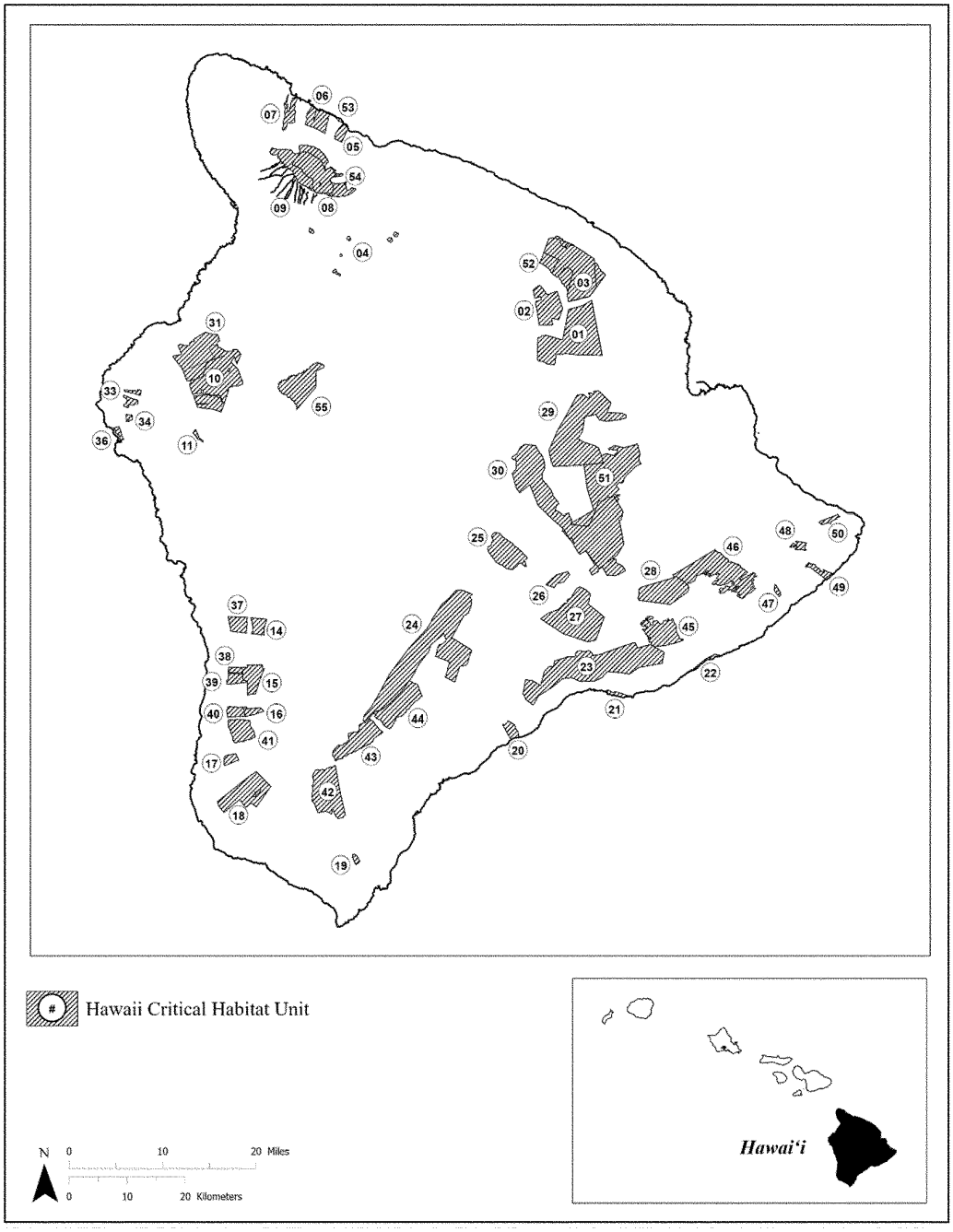
Map 1

Hawaii Critical Habitat—Island Index Map


Hawaii Critical Habitat Unit
N
0 10 20 Miles
0 10 20 Kilometers
Hawai'i

* * * * *

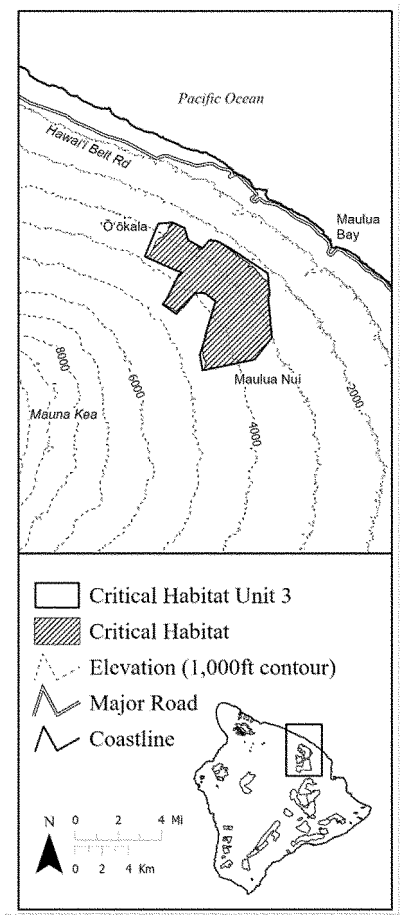
(12) Hawaii 3–*Cyanea tritomantha*-a (12,059 ac; 4,880 ha).

(i) This unit is also critical habitat for Hawaii 3–*Cyrtandra wagneri*-a, Hawaii 3–*Melicope remyi*-a, Hawaii 3–*Phyllostegia floribunda*-a, Hawaii 3–*Pittosporum hawaiiense*-a, Hawaii 3–*Schiedea diffusa* ssp. *macraei*-a, and Hawaii 3–*Stenogyne cranwelliae*-a (see paragraphs (k)(15), (k)(16), (k)(17), (k)(19), (k)(20), (k)(21), respectively, of this section).

(ii) Map 11a follows:

Map 11a

Hawaii 3–*Cyanea tritomantha*-a, Hawaii 3–*Cyrtandra wagneri*-a, Hawaii 3–*Melicope remyi*-a, Hawaii 3–*Phyllostegia floribunda*-a, Hawaii 3–*Pittosporum hawaiiense*-a, Hawaii 3–*Schiedea diffusa* ssp. *macraei-a,* Hawaii 3–*Stenogyne cranwelliae*-a



* * * * *

(15) Hawaii 3–*Cyrtandra wagneri*-a (12,059 ac; 4,880 ha). See paragraph (k)(12)(ii) of this section for the map of this unit.

(16) Hawaii 3–*Melicope remyi*-a (12,059 ac; 4,880 ha). See paragraph (k)(12)(ii) of this section for the map of this unit.

(17) Hawaii 3–*Phyllostegia floribunda*-a (12,059 ac; 4,880 ha). See paragraph (k)(12)(ii) of this section for the map of this unit.

* * * * *

(19) Hawaii 3–*Pittosporum hawaiiense*-a (12,059 ac; 4,880 ha). See paragraph (k)(12)(ii) of this section for the map of this unit.

(20) Hawaii 3–*Schiedea diffusa* ssp. *macraei*-a (12,059 ac; 4,880 ha). See paragraph (k)(12)(ii) of this section for the map of this unit.

(21) Hawaii 3–*Stenogyne cranwelliae*-a (12,059 ac; 4,880 ha). See paragraph (k)(12)(ii) of this section for the map of this unit.

* * * * *

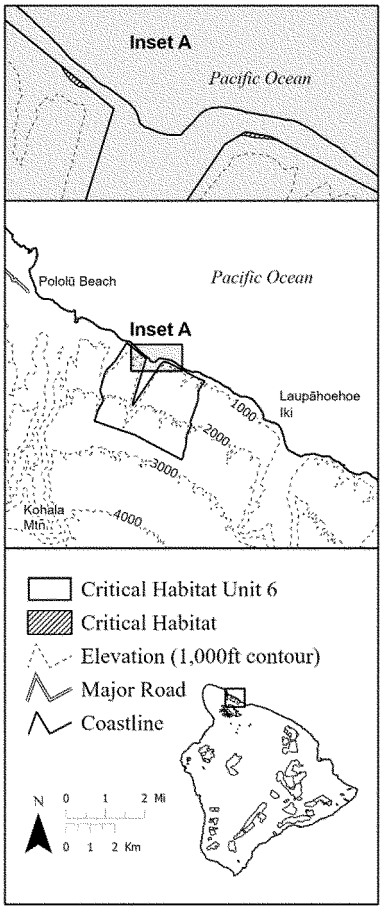
(32) Hawaii 6–*Bidens hillebrandiana* ssp. *hillebrandiana*-a (2 ac; 1 ha).

(i) [Reserved].

(ii) Map 24a follows:

Map 24a

Hawaii 6–*Bidens hillebrandiana* ssp. *hillebrandiana*-a



* * * * *

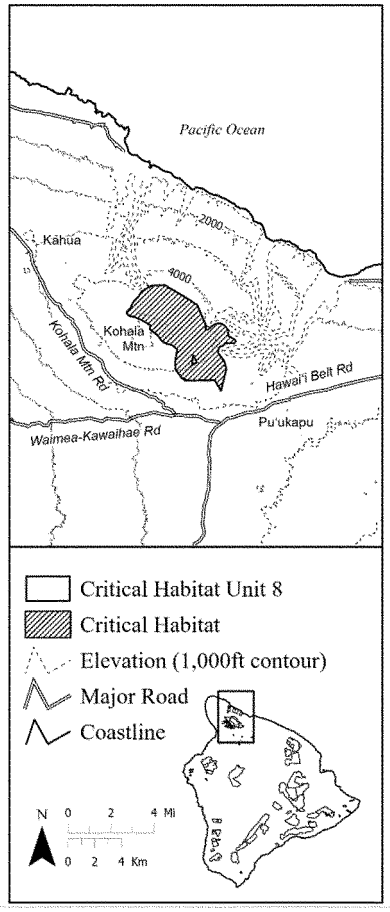
(36) Hawaii 8–*Cyanea tritomantha*-b (6,805 ac; 2,754 ha).

(i) This unit is also critical habitat for Hawaii 8–*Melicope remyi*-b, Hawaii 8–*Phyllostegia floribunda*-b, Hawaii 8–*Pittosporum hawaiiense*-b, Hawaii 8–*Schiedea diffusa* ssp. *macraei*-b, and Hawaii 8–*Stenogyne cranwelliae*-b (see paragraphs (k)(37), (k)(38), (k)(40), (k)(41), and (k)(42), respectively, of this section).

(ii) Map 27a follows:

Map 27a

Hawaii 8–*Cyanea tritomantha*-b, Hawaii 8–*Melicope remyi*-b, Hawaii 8–*Phyllostegia floribunda*-b, Hawaii 8–*Pittosporum hawaiiense*-b, Hawaii 8–*Schiedea diffusa* ssp. *macraei-b,* Hawaii 8–*Stenogyne cranwelliae*-b



(37) Hawaii 8–*Melicope remyi*-b (6,805 ac; 2,754 ha). See paragraph (k)(36)(ii) of this section for the map of this unit.

(38) Hawaii 8–*Phyllostegia floribunda*-b (6,805 ac; 2,754 ha). See paragraph (k)(36)(ii) of this section for the map of this unit.

* * * * *

(40) Hawaii 8–*Pittosporum hawaiiense*-b (6,805 ac; 2,754 ha). See paragraph (k)(36)(ii) of this section for the map of this unit.

(41) Hawaii 8–*Schiedea diffusa* ssp. *macraei*-b (6,805 ac; 2,754 ha). See paragraph (k)(36)(ii) of this section for the map of this unit.

(42) Hawaii 8–*Stenogyne cranwelliae*-b (6,805 ac; 2,754 ha). See paragraph

(k)(36)(ii) of this section for the map of this unit.

* * * * *

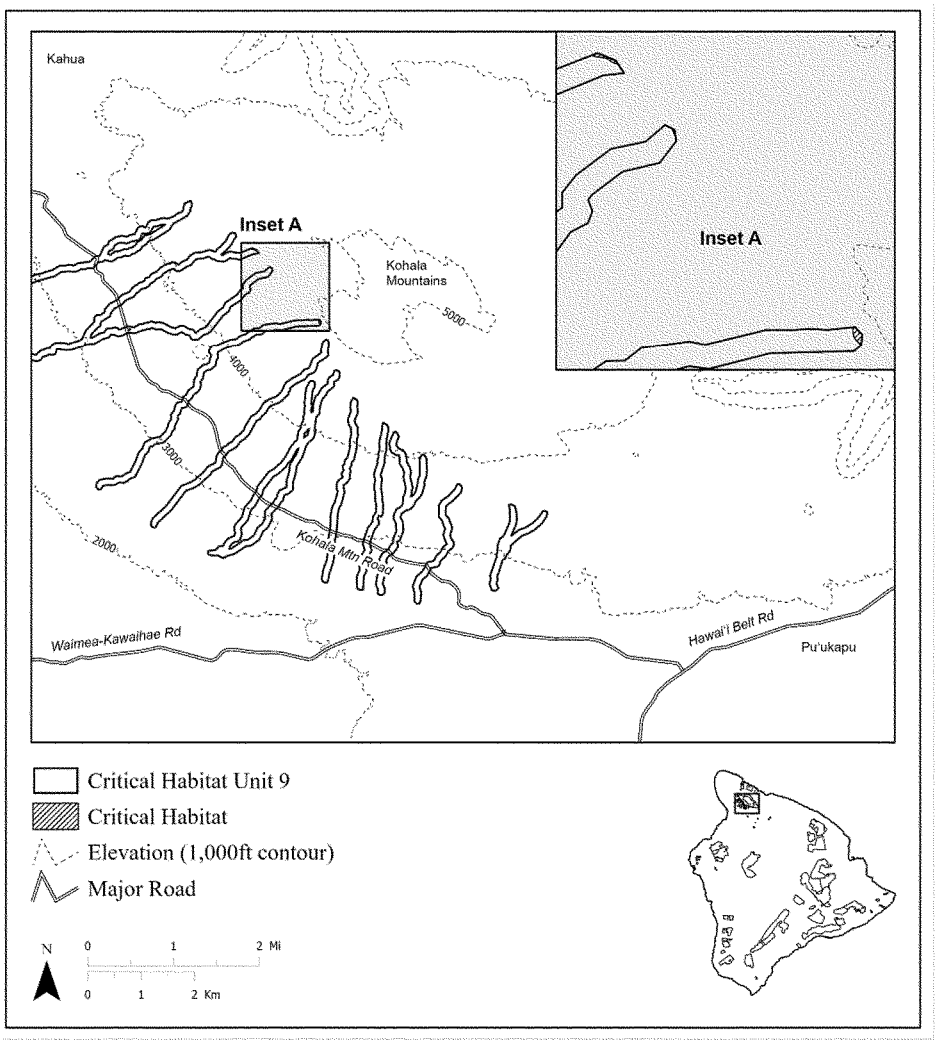
(53) Hawaii 9–*Cyanea tritomantha*-c (1 ac; <1 ha).

(i) This unit is also critical habitat for Hawaii 9–*Melicope remyi*-c, Hawaii 9–*Phyllostegia floribunda*-c, Hawaii 9–*Pittosporum hawaiiense*-c, Hawaii 9–*Schiedea diffusa* ssp. *macraei*-c, and Hawaii 9–*Stenogyne cranwelliae*-c (see paragraphs (k)(54), (k)(55), (k)(56), (k)(57), and (k)(58) respectively, of this section).

(ii) Map 38a follows:

Map 38a

Hawaii 9–*Cyanea tritomantha*-c, Hawaii 9–*Melicope remyi*-c, Hawaii 9–*Phyllostegia floribunda*-c, Hawaii 9–*Pittosporum hawaiiense*-c, Hawaii 9–*Schiedea diffusa* ssp. *macraei*-c, Hawaii 9–*Stenogyne cranwelliae*-c



(54) Hawaii 9–*Melicope remyi*-c (1 ac; <1 ha). See paragraph (k)(53)(ii) of this section for the map of this unit.

(55) Hawaii 9–*Phyllostegia floribunda*-c (1 ac; <1 ha). See paragraph (k)(53)(ii) of this section for the map of this unit.

(56) Hawaii 9–*Pittosporum hawaiiense*-c (1 ac; <1 ha). See paragraph (k)(53)(ii) of this section for the map of this unit.

(57) Hawaii 9–*Schiedea diffusa* ssp. *macraei*-c (1 ac; <1 ha). See paragraph (k)(53)(ii) of this section for the map of this unit.

(58) Hawaii 9–*Stenogyne cranwelliae*-c (1 ac; <1 ha). See paragraph (k)(53)(ii) of this section for the map of this unit.

* * * * *

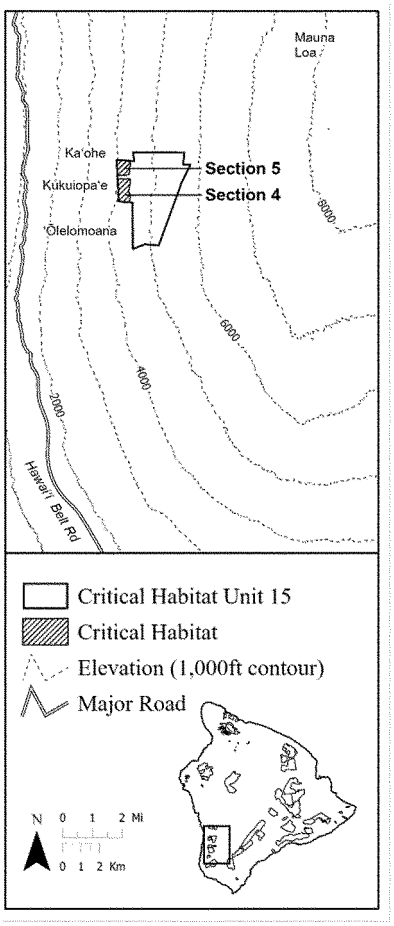
(79) Hawaii 15–*Cyanea marksii*-a-Section 4 (182 ac; 73 ha).

(i) This unit is also critical habitat for Hawaii 15–*Phyllostegia floribunda*-d-Section 4, Hawaii 15–*Pittosporum hawaiiense*-d-Section 4, Hawaii 15–*Schiedea diffusa* ssp. *macraei*-d-Section 4, and Hawaii 15–*Stenogyne cranwelliae*-d-Section 4 (see paragraphs (k)(82), (k)(84), (k)(86), and (k)(88), respectively, of this section).

(ii) Map 58a follows:

Map 58a

Hawaii 15–*Cyanea marksii*-a-Section 4, Hawaii 15–*Cyanea marksii*-b-Section 5, Hawaii 15–*Phyllostegia floribunda*-d-Section 4, Hawaii 15–*Phyllostegia floribunda*-e-Section 5, Hawaii 15–*Pittosporum hawaiiense*-d-Section 4, Hawaii 15–*Pittosporum hawaiiense*-e-Section 5, Hawaii 15–*Schiedea diffusa* ssp. *macraei*-d-Section 4, Hawaii 15–*Schiedea diffusa* ssp. *macraei*-e-Section 5, Hawaii 15–*Stenogyne cranwelliae*-d-Section 4, Hawaii 15–*Stenogyne cranwelliae*-e-Section 5



(80) Hawaii 15–*Cyanea marksii*-b-Section 5 (127 ac; 51 ha).

(i) This unit is also critical habitat for Hawaii 15–*Phyllostegia floribunda*-e-Section 5, Hawaii 15–*Pittosporum hawaiiense*-e-Section 5, Hawaii 15–*Schiedea diffusa* ssp. *macraei*-e-Section 5, and Hawaii 15–*Stenogyne cranwelliae*-e-Section 5 (see paragraphs (k)(83), (k)(85), (k)(87), and (k)(89), respectively, of this section).

(ii) See paragraph (k)(79)(ii) of this section for the map of this unit.

* * * * *

(82) Hawaii 15–*Phyllostegia floribunda*-d-Section 4 (182 ac; 73 ha). See paragraph (k)(79)(ii) of this section for the map of this unit.

(83) Hawaii 15–*Phyllostegia floribunda*-e-Section 5 (127 ac; 51 ha). See paragraph (k)(79)(ii) of this section for the map of this unit.

(84) Hawaii 15–*Pittosporum hawaiiense*-d-Section 4 (182 ac; 73 ha). See paragraph (k)(79)(ii) of this section for the map of this unit.

(85) Hawaii 15–*Pittosporum hawaiiense*-e-Section 5 (127 ac; 51 ha). See paragraph (k)(79)(ii) of this section for the map of this unit.

(86) Hawaii 15–*Schiedea diffusa* ssp. *macraei*-d-Section 4 (182 ac; 73 ha). See paragraph (k)(79)(ii) of this section for the map of this unit.

(87) Hawaii 15–*Schiedea diffusa* ssp. *macraei*-e-Section 5 (127 ac; 51 ha). See paragraph (k)(79)(ii) of this section for the map of this unit.

(88) Hawaii 15–*Stenogyne cranwelliae*-d-Section 4 (182 ac; 73 ha). See paragraph (k)(79)(ii) of this section for the map of this unit.

(89) Hawaii 15–*Stenogyne cranwelliae*-e-Section 5 (127 ac; 51 ha). See paragraph (k)(79)(ii) of this section for the map of this unit.

* * * * *

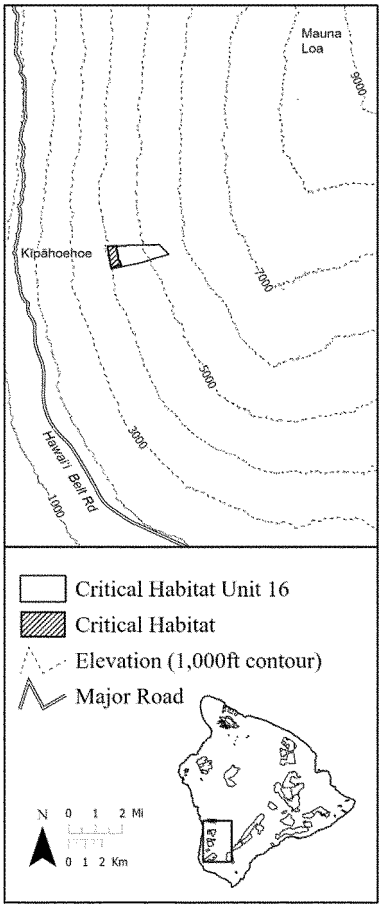
(91) Hawaii 16–*Cyanea marksii*-c (156 ac; 63 ha).

(i) This unit is also critical habitat for Hawaii 16–*Phyllostegia floribunda*-f, Hawaii 16–*Pittosporum hawaiiense*-f, Hawaii 16–*Schiedea diffusa* ssp. *macraei*-f, and Hawaii 16–*Stenogyne cranwelliae*-f (see paragraphs (k)(93), (k)(94), (k)(95), and (k)(96), respectively, of this section).

(ii) Map 60a follows:

Map 60a

Hawaii 16–*Cyanea marksii*-c, Hawaii 16–*Phyllostegia floribunda*-f, Hawaii 16–*Pittosporum hawaiiense*-f, Hawaii 16–*Schiedea diffusa* ssp. *macraei*-f, Hawaii 16–*Stenogyne cranwelliae*-f



* * * * *

(93) Hawaii 16–*Phyllostegia floribunda*-f (156 ac; 63 ha). See paragraph (k)(91)(ii) of this section for the map of this unit.

(94) Hawaii 16–*Pittosporum hawaiiense*-f (156 ac; 63 ha). See paragraph (k)(91)(ii) of this section for the map of this unit.

(95) Hawaii 16–*Schiedea diffusa* ssp. *macraei*-f (156 ac; 63 ha). See paragraph (k)(91)(ii) of this section for the map of this unit.

(96) Hawaii 16–*Stenogyne cranwelliae*-f (156 ac; 63 ha). See paragraph (k)(91)(ii) of this section for the map of this unit.

* * * * *

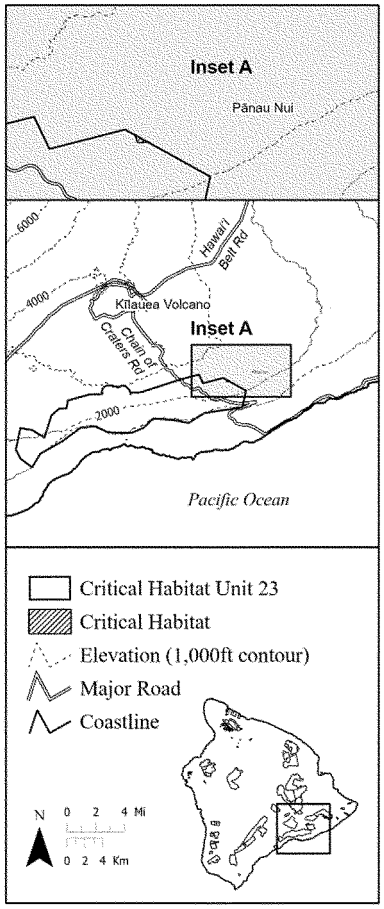
(109) Hawaii 23–*Cyrtandra wagneri*-b (9 ac; 4 ha).

(i) This unit is also critical habitat for Hawaii 23–*Phyllostegia floribunda*-g and Hawaii 23–*Pittosporum hawaiiense*-g (see paragraphs (k)(110) and (k)(111), respectively, of this section).

(ii) Map 73a follows:

Map 73a

Hawaii 23–*Cyrtandra wagneri*-b, Hawaii 23–*Phyllostegia floribunda*-g, Hawaii 23–*Pittosporum hawaiiense*-g



(110) Hawaii 23–*Phyllostegia floribunda*-g (9 ac; 4 ha). See paragraph (k)(109)(ii) of this section for the map of this unit.

(111) Hawaii 23–*Pittosporum hawaiiense*-g (9 ac; 4 ha). See paragraph (k)(109)(ii) of this section for the map of this unit.

* * * * *

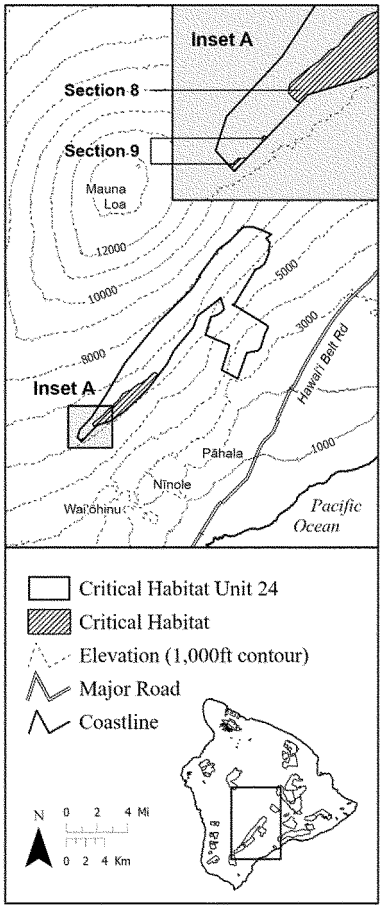
(117) Hawaii 24–*Cyanea tritomantha*-d-Section 8 (2,081 ac; 842 ha).

(i) This unit is also critical habitat for Hawaii 24–*Cyrtandra wagneri*-c-Section 8, Hawaii 24–*Pittosporum hawaiiense*-h-Section 8, Hawaii 24–*Schiedea diffusa* ssp. *macraei*-g-Section 8, and Hawaii 24–*Stenogyne cranwelliae*-g-Section 8 (see paragraphs (k)(118), (k)(122), (k)(125), and (k)(127), respectively, of this section).

(ii) Map 78a follows:

Map 78a

Hawaii 24–*Cyanea tritomantha*-d-Section 8, Hawaii 24–*Cyrtandra wagneri*-c-Section 8, Hawaii 24–*Cyrtandra wagneri*-d-Section 9, Hawaii 24–*Pittosporum hawaiiense*-h-Section 8, Hawaii 24–*Pittosporum hawaiiense*-i-Section 9, Hawaii 24–*Schiedea diffusa* ssp. *macraei*-g-Section 8, Hawaii 24–*Schiedea diffusa* ssp. *macraei*-h-Section 9, Hawaii 24–*Stenogyne cranwelliae*-g-Section 8, Hawaii 24–*Stenogyne cranwelliae*-h-Section 9



(118) Hawaii 24–*Cyrtandra wagneri*-c-Section 8 (2,081 ac; 842 ha). See paragraph (k)(117)(ii) of this section for the map of this unit.

(119) Hawaii 24–*Cyrtandra wagneri*-d-Section 9 (101 ac; 41 ha)

(i) This unit is also critical habitat for Hawaii 24–*Pittosporum hawaiiense*-i-Section 9, Hawaii 24–*Schiedea diffusa* ssp. *macraei*-h-Section 9, and Hawaii 24–*Stenogyne cranwelliae*-h-Section 9 (see paragraphs (k)(123), (k)(126), and (k)(128), respectively, of this section).

(ii) See paragraph (k)(117)(ii) of this section for the map of this unit.

* * * * *

(122) Hawaii 24–*Pittosporum hawaiiense*-h-Section 8 (2,081 ac; 842 ha). See paragraph (k)(117)(ii) of this section for the map of this unit.

(123) Hawaii 24–*Pittosporum hawaiiense*-i-Section 9 (101 ac; 41 ha). See paragraph (k)(117)(ii) of this section for the map of this unit.

* * * * *

(125) Hawaii 24–*Schiedea diffusa* ssp. *macraei*-g-Section 8 (2,081 ac; 842 ha). See paragraph (k)(117)(ii) of this section for the map of this unit.

(126) Hawaii 24–*Schiedea diffusa* ssp. *macraei*-h-Section 9 (101 ac; 41 ha). See paragraph (k)(117)(ii) of this section for the map of this unit.

(127) Hawaii 24–*Stenogyne cranwelliae*-g-Section 8 (2,081 ac; 842 ha). See paragraph (k)(117)(ii) of this section for the map of this unit.

(128) Hawaii 24–*Stenogyne cranwelliae*-h-Section 9 (101 ac; 41 ha). See paragraph (k)(117)(ii) of this section for the map of this unit.

* * * * *

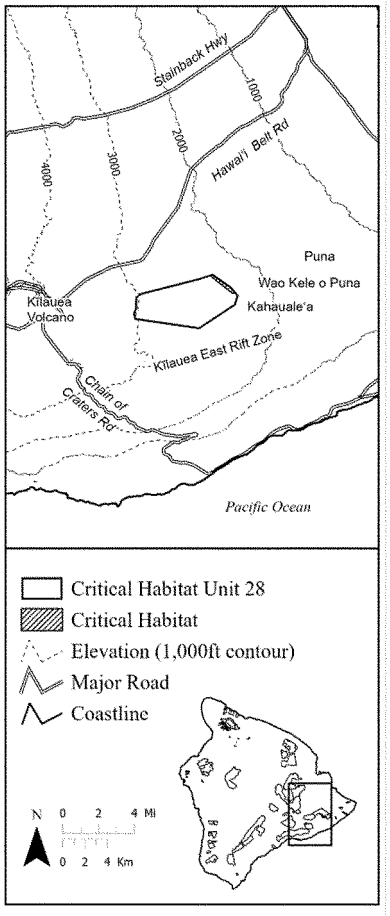
(137) Hawaii 28–*Cyrtandra nanawaleensis*-a (155 ac; 63 ha).

(i) This unit is also critical habitat for Hawaii 28–*Cyrtandra wagneri*-e and Hawaii 28–*Phyllostegia floribunda*-h (see paragraphs (k)(138) and (k)(139), respectively, of this section).

(ii) Map 89a follows:

Map 89a

Hawaii 28–*Cyrtandra nanawaleensis*-a, Hawaii 28–*Cyrtandra wagneri*-e, Hawaii 28–*Phyllostegia floribunda*-h



(138) Hawaii 28–*Cyrtandra wagneri*-e (155 ac; 63 ha). See paragraph (k)(137)(ii) of this section for the map of this unit.

(139) Hawaii 28–*Phyllostegia floribunda*-h (155 ac; 63 ha). See paragraph (k)(137)(ii) of this section for the map of this unit.

* * * * *

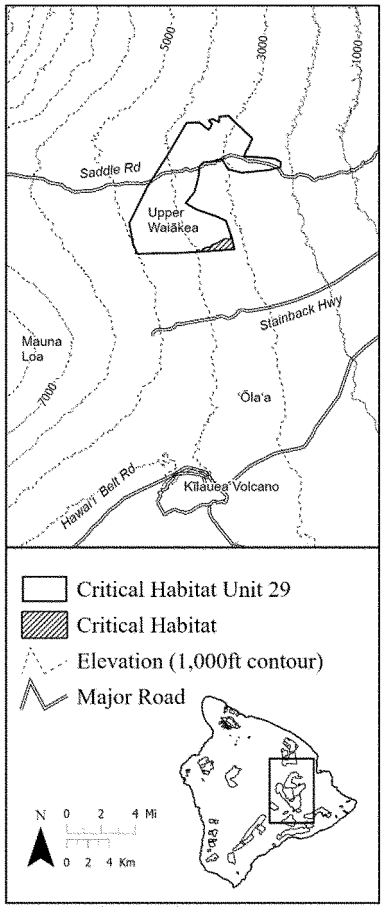
(142) Hawaii 29–*Cyanea tritomantha*-e (494 ac; 200 ha).

(i) This unit is also critical habitat for Hawaii 29–*Cyrtandra wagneri*-f, Hawaii 29–*Phyllostegia floribunda*-i, Hawaii 29–*Pittosporum hawaiiense*-j, Hawaii 29–*Schiedea diffusa* ssp. *macraei*-i, and Hawaii 29–*Stenogyne cranwelliae*-i (see paragraphs (k)(145), (k)(146), (k)(147), (k)(148), and (k)(149), respectively, of this section).

(ii) Map 91a follows:

Map 91a

Hawaii 29–*Cyanea tritomantha*-e, Hawaii 29–*Cyrtandra wagneri*-f, Hawaii 29–*Phyllostegia floribunda*-i, Hawaii 29–*Pittosporum hawaiiense*-j, Hawaii 29–*Schiedea diffusa* ssp. *macraei*-i, Hawaii 29–*Stenogyne cranwelliae*-i



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(145) Hawaii 29–*Cyrtandra wagneri*-f (494 ac; 200 ha). See paragraph (k)(142)(ii) of this section for the map of this unit.

(146) Hawaii 29–*Phyllostegia floribunda*-i (494 ac; 200 ha). See paragraph (k)(142)(ii) of this section for the map of this unit.

(147) Hawaii 29–*Pittosporum hawaiiense*-j (494 ac; 200 ha). See paragraph (k)(142)(ii) of this section for the map of this unit.

(148) Hawaii 29–*Schiedea diffusa* ssp. *macraei*-i (494 ac; 200 ha). See paragraph (k)(142)(ii) of this section for the map of this unit.

(149) Hawaii 29–*Stenogyne cranwelliae*-i (494 ac; 200 ha). See paragraph (k)(142)(ii) of this section for the map of this unit.

* * * * *

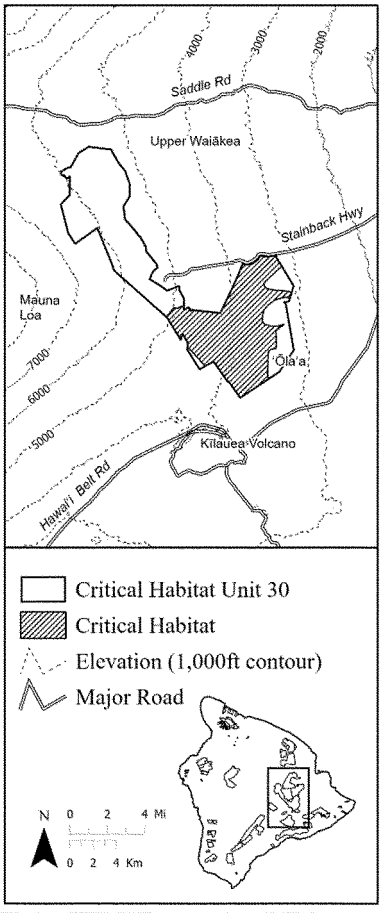
(155) Hawaii 30–*Cyanea tritomantha*-f (13,732 ac; 5,557 ha).

(i) This unit is also critical habitat for Hawaii 30–*Cyrtandra wagneri*-g, Hawaii 30–*Phyllostegia floribunda*-j, Hawaii 30–*Pittosporum hawaiiense*-k, Hawaii 30–*Schiedea diffusa* ssp. *macraei*-j, and Hawaii 30–*Stenogyne cranwelliae*-j (see paragraphs (k)(170), (k)(171), (k)(172), (k)(173), and (k)(174), respectively, of this section).

(ii) Map 98a follows:

Map 98a

Hawaii 30–*Cyanea tritomantha*-f, Hawaii 30–*Cyrtandra wagneri*-g, Hawaii 30–*Phyllostegia floribunda*-j, Hawaii 30–*Pittosporum hawaiiense*-k, Hawaii 30–*Schiedea diffusa* ssp. *macraei*-j, Hawaii 30–*Stenogyne cranwelliae*-j



* * * * *

(157) Hawaii 30–*Cyrtandra wagneri*-g (13,732 ac; 5,557 ha). See paragraph (k)(155)(ii) of this section for the map of this unit.

(158) Hawaii 30–*Phyllostegia floribunda*-j (13,732 ac; 5,557 ha). See paragraph (k)(155)(ii) of this section for the map of this unit.

* * * * *

(161) Hawaii 30–*Pittosporum hawaiiense*-k (13,732 ac; 5,557 ha). See paragraph (k)(155)(ii) of this section for the map of this unit.

* * * * *

(163) Hawaii 30–*Schiedea diffusa* ssp. *macraei*-j (13,732 ac; 5,557 ha). See paragraph (k)(155)(ii) of this section for the map of this unit.

* * * * *

(165) Hawaii 30–*Stenogyne cranwelliae*-j (13,732 ac; 5,557 ha). See paragraph (k)(155)(ii) of this section for the map of this unit.

* * * * *

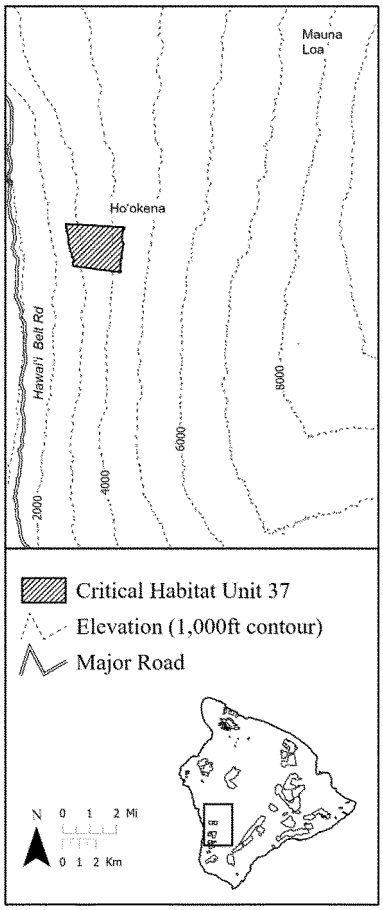
(177) Hawaii 37–*Cyanea marksii*-d (1,906 ac; 771 ha)

(i) This unit is also critical habitat for Hawaii 37–*Phyllostegia floribunda*-k, Hawaii 37–*Pittosporum hawaiiense*-l, Hawaii 37–*Schiedea diffusa* ssp. *macraei*-k, and Hawaii 37–*Stenogyne cranwelliae*-k (see paragraphs (k)(178), (k)(179), (k)(180), and (k)(181), respectively, of this section).

(ii) Map 106 follows:

Map 106

Hawaii 37–*Cyanea marksii*-d, Hawaii 37–*Phyllostegia floribunda*-k, Hawaii 37–*Pittosporum hawaiiense*-l, Hawaii 37–*Schiedea diffusa* ssp. *macraei*-k, Hawaii 37–*Stenogyne cranwelliae*-k



(178) Hawaii 37–*Phyllostegia floribunda*-k (1,906 ac; 771 ha). See paragraph (k)(177)(ii) of this section for the map of this unit.

(179) Hawaii 37–*Pittosporum hawaiiense*-l (1,906 ac; 771 ha). See paragraph (k)(177)(ii) of this section for the map of this unit.

(180) Hawaii 37–*Schiedea diffusa* ssp. *macraei*-k (1,906 ac; 771 ha). See paragraph (k)(177)(ii) of this section for the map of this unit.

(181) Hawaii 37–*Stenogyne cranwelliae*-k (1,906 ac; 771 ha). See paragraph (k)(177)(ii) of this section for the map of this unit.

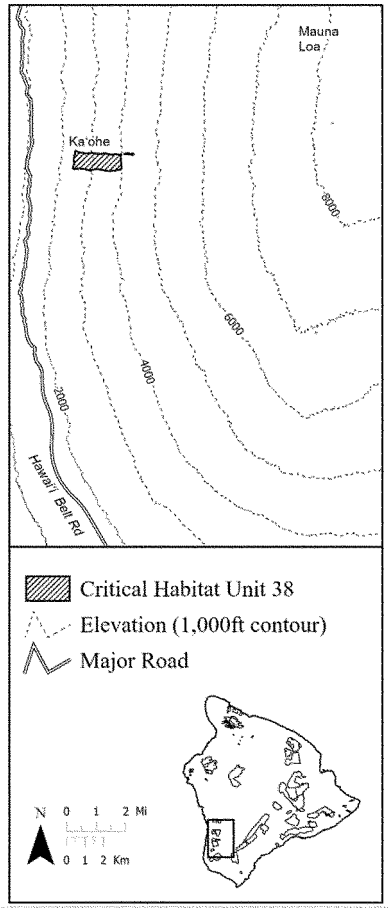
(182) Hawaii 38–*Cyanea marksii*-e (534 ac; 216 ha).

(i) This unit is also critical habitat for Hawaii 38–*Phyllostegia floribunda*-l, Hawaii 38–*Pittosporum hawaiiense*-m, Hawaii 38–*Schiedea diffusa* ssp. *macraei*-l, and Hawaii 38–*Stenogyne cranwelliae*-l (see paragraphs (k)(183), (k)(184), (k)(185), and (k)(186), respectively, of this section).

(ii) Map 107 follows:

Map 107

Hawaii 38–*Cyanea marksii*-e, Hawaii 38–*Phyllostegia floribunda*-l, Hawaii 38–*Pittosporum hawaiiense*-m, Hawaii 38–*Schiedea diffusa* ssp. *macraei*-l, Hawaii 38–*Stenogyne cranwelliae*-l



(183) Hawaii 38–*Phyllostegia floribunda*-l (534 ac; 216 ha). See paragraph (k)(182)(ii) of this section for the map of this unit.

(184) Hawaii 38–*Pittosporum hawaiiense*-m (534 ac; 216 ha). See paragraph (k)(182)(ii) of this section for the map of this unit.

(185) Hawaii 38–*Schiedea diffusa* ssp. *macraei*-l (534 ac; 216 ha). See paragraph (k)(182)(ii) of this section for the map of this unit.

(186) Hawaii 38–*Stenogyne cranwelliae*-l (534 ac; 216 ha). See paragraph (k)(182)(ii) of this section for the map of this unit.

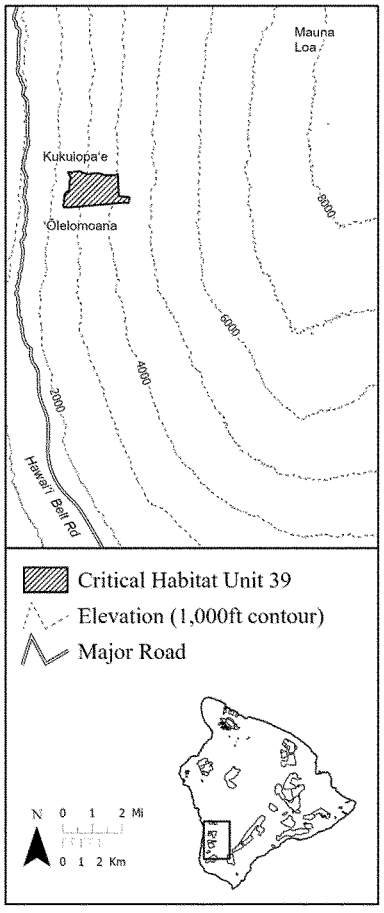
(187) Hawaii 39–*Cyanea marksii*-f (1,164 ac; 471 ha)

(i) This unit is also critical habitat for Hawaii 39–*Phyllostegia floribunda*-m, Hawaii 39–*Pittosporum hawaiiense*-n, Hawaii 39–*Schiedea diffusa* ssp. *macraei*-m, and Hawaii 39–*Stenogyne cranwelliae*-m (see paragraphs (k)(188), (k)(189), (k)(190), and (k)(191), respectively, of this section).

(ii) Map 108 follows:

Map 108

Hawaii 39–*Cyanea marksii*-f, Hawaii 39–*Phyllostegia floribunda*-m, Hawaii 39–*Pittosporum hawaiiense*-n, Hawaii 39–*Schiedea diffusa* ssp. *macraei*-m, Hawaii 39–*Stenogyne cranwelliae*-m



(188) Hawaii 39–*Phyllostegia floribunda*-m (1,164 ac; 471 ha). See paragraph (k)(187)(ii) of this section for the map of this unit.

(189) Hawaii 39–*Pittosporum hawaiiense*-n (1,164 ac; 471 ha). See paragraph (k)(187)(ii) of this section for the map of this unit.

(190) Hawaii 39–*Schiedea diffusa* ssp. *macraei*-m (1,164 ac; 471 ha). See paragraph (k)(187)(ii) of this section for the map of this unit.

(191) Hawaii 39–*Stenogyne cranwelliae*-m (1,164 ac; 471 ha). See paragraph (k)(187)(ii) of this section for the map of this unit.

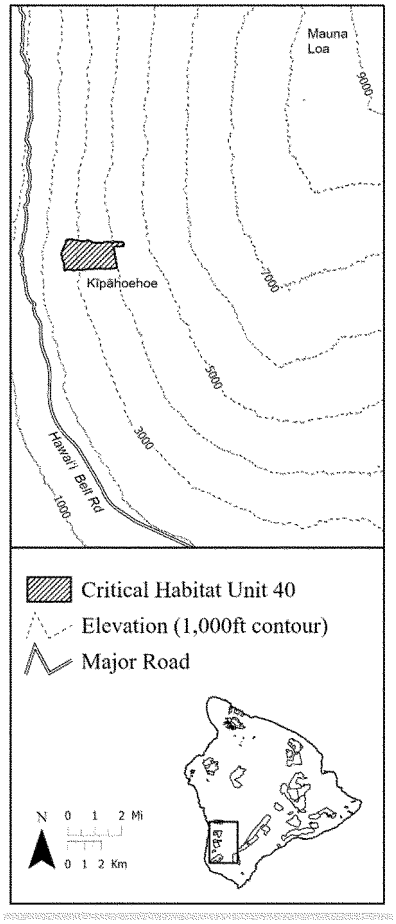
(192) Hawaii 40–*Cyanea marksii*-g (1,243 ac; 503 ha)

(i) This unit is also critical habitat for Hawaii 40–*Phyllostegia floribunda*-n, Hawaii 40–*Pittosporum hawaiiense*-o, Hawaii 40–*Schiedea diffusa ssp. macraei*-n, and Hawaii 40–*Stenogyne cranwelliae*-n (see paragraphs (k)(193), (k)(194), (k)(195), and (k)(196), respectively, of this section).

(ii) Map 109 follows:

Map 109

Hawaii 40–*Cyanea marksii*-g, Hawaii 40–*Phyllostegia floribunda*-n, Hawaii 40–*Pittosporum hawaiiense*-o, Hawaii 40–*Schiedea diffusa* ssp. *macraei*-n, Hawaii 40–*Stenogyne cranwelliae*-n



(193) Hawaii 40–*Phyllostegia floribunda*-n (1,243 ac; 503 ha). See paragraph (k)(192)(ii) of this section for the map of this unit.

(194) Hawaii 40–*Pittosporum hawaiiense*-o (1,243 ac; 503 ha). See

paragraph (k)(192)(ii) of this section for the map of this unit.

(195) Hawaii 40–*Schiedea diffusa* ssp. *macraei*-n (1,243 ac; 503 ha). See paragraph (k)(192)(ii) of this section for the map of this unit.

(196) Hawaii 40–*Stenogyne cranwelliae*-n (1,243 ac; 503 ha). See paragraph (k)(192)(ii) of this section for the map of this unit.

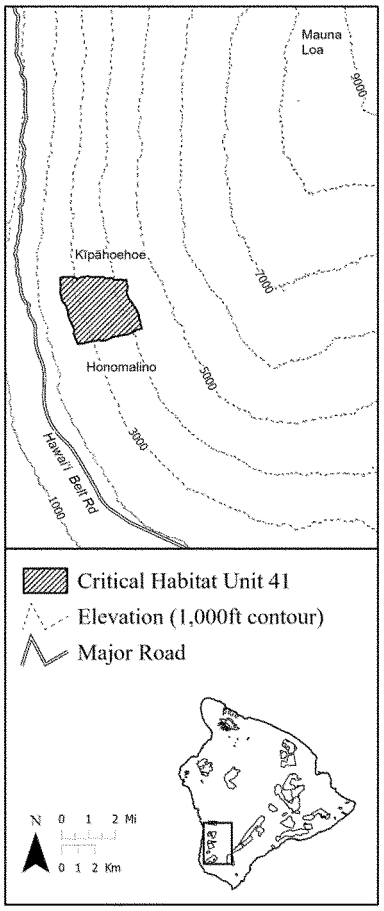
(197) Hawaii 41–*Cyanea marksii*-h (3,412 ac; 1,381 ha)

(i) This unit is also critical habitat for Hawaii 41–*Phyllostegia floribunda*-o, Hawaii 41–*Pittosporum hawaiiense*-p, Hawaii 41–*Schiedea diffusa* ssp. *macraei*-o, and Hawaii 41–*Stenogyne cranwelliae*-o (see paragraphs (k)(198), (k)(199), (k)(200), and (k)(201), respectively, of this section).

(ii) Map 110 follows:

Map 110

Hawaii 41–*Cyanea marksii*-h, Hawaii 41–*Phyllostegia floribunda*-o, Hawaii 41–*Pittosporum hawaiiense*-p, Hawaii 41–*Schiedea diffusa* ssp. *macraei*-o, Hawaii 41–*Stenogyne cranwelliae*-o



(198) Hawaii 41–*Phyllostegia floribunda*-o (3,412 ac; 1,381 ha). See paragraph (k)(197)(ii) of this section for the map of this unit.

(199) Hawaii 41–*Pittosporum hawaiiense*-p (3,412 ac; 1,381 ha). See paragraph (k)(197)(ii) of this section for the map of this unit.

(200) Hawaii 41–*Schiedea diffusa* ssp. *macraei*-o (3,412 ac; 1,381 ha). See paragraph (k)(197)(ii) of this section for the map of this unit.

(201) Hawaii 41–*Stenogyne cranwelliae*-o (3,412 ac; 1,381 ha). See paragraph (k)(197)(ii) of this section for the map of this unit.

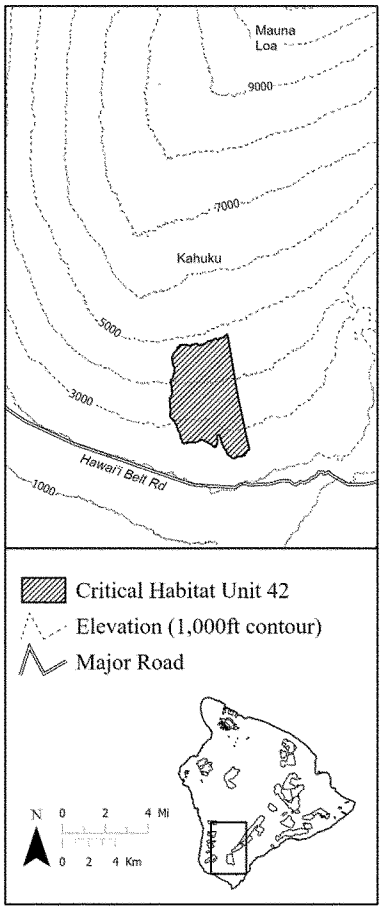
(202) Hawaii 42–*Cyanea tritomantha*-g (8,781 ac; 3,554 ha).

(i) This unit is also critical habitat for Hawaii 42–*Cyrtandra wagneri*-h, Hawaii 42–*Phyllostegia floribunda*-p, Hawaii 42–*Pittosporum hawaiiense*-q, Hawaii 42–*Schiedea diffusa* ssp. *macraei*-p, and Hawaii 42–*Stenogyne cranwelliae*-p (see paragraphs (k)(203), (k)(204), (k)(205), (k)(206), and (k)(207), respectively, of this section).

(ii) Map 111 follows:

Map 111

Hawaii 42–*Cyanea tritomantha*-g, Hawaii 42–*Cyrtandra wagneri*-h, Hawaii 42–*Phyllostegia floribunda*-p, Hawaii 42–*Pittosporum hawaiiense*-q, Hawaii 42–*Schiedea diffusa* ssp. *macraei*-p, Hawaii 42–*Stenogyne cranwelliae*-p



(203) Hawaii 42–*Cyrtandra wagneri*-h (8,781 ac; 3,554 ha). See paragraph (k)(202)(ii) of this section for the map of this unit.

(204) Hawaii 42–*Phyllostegia floribunda*-p (8,781 ac; 3,554 ha). See paragraph (k)(202)(ii) of this section for the map of this unit.

(205) Hawaii 42–*Pittosporum hawaiiense*-q (8,781 ac; 3,554 ha). See paragraph (k)(202)(ii) of this section for the map of this unit.

(206) Hawaii 42–*Schiedea diffusa* ssp. *macraei*-p (8,781 ac; 3,554 ha). See paragraph (k)(202)(ii) of this section for the map of this unit.

(207) Hawaii 42–*Stenogyne cranwelliae*-p (8,781 ac; 3,554 ha). See paragraph (k)(202)(ii) of this section for the map of this unit.

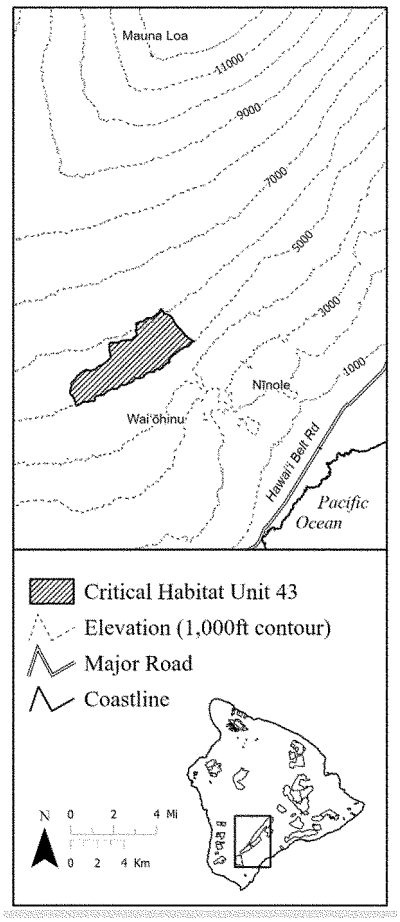
(208) Hawaii 43–*Cyrtandra wagneri*-i (5,872 ac; 2,376 ha).

(i) This unit is also critical habitat for Hawaii 43–*Pittosporum hawaiiense*-r, Hawaii 43–*Schiedea diffusa* ssp. *macraei*-q, and Hawaii 43–*Stenogyne cranwelliae*-q (see paragraphs (k)(209), (k)(210), and (k)(211), respectively, of this section).

(ii) Map 112 follows:

Map 112

Hawaii 43–*Cyrtandra wagneri*-i, Hawaii 43–*Pittosporum hawaiiense*-r, Hawaii 43–*Schiedea diffusa* ssp. *macraei*-q, Hawaii 43–*Stenogyne cranwelliae*-q



(209) Hawaii 43–*Pittosporum hawaiiense*-r (5,872 ac; 2,376 ha). See paragraph (k)(208)(ii) of this section for the map of this unit.

(210) Hawaii 43–*Schiedea diffusa* ssp. *macraei*-q (5,872 ac; 2,376 ha). See paragraph (k)(208)(ii) of this section for the map of this unit.

(211) Hawaii 43–*Stenogyne cranwelliae*-q (5,872 ac; 2,376 ha). See paragraph (k)(208)(ii) of this section for the map of this unit.

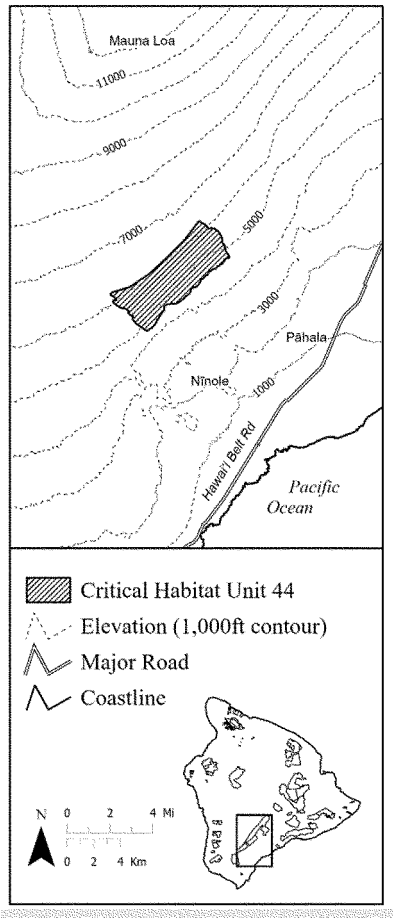
(212) Hawaii 44–*Cyanea tritomantha*-h (6,406 ac; 2,593 ha).

(i) This unit is also critical habitat for Hawaii 44–*Cyrtandra wagneri*-j, Hawaii 44–*Pittosporum hawaiiense*-s, Hawaii 44–*Schiedea diffusa* ssp. *macraei*-r, and Hawaii 44–*Stenogyne cranwelliae*-r (see paragraphs (k)(213), (k)(214), (k)(215), and (k)(216), respectively, of this section).

(ii) Map 113 follows:

Map 113

Hawaii 44–*Cyanea tritomantha*-h, Hawaii 44–*Cyrtandra wagneri*-j, Hawaii 44–*Pittosporum hawaiiense*-s, Hawaii 44–*Schiedea diffusa* ssp. *macraei*-r, Hawaii 44–*Stenogyne cranwelliae*-r



(213) Hawaii 44–*Cyrtandra wagneri*-j (6,406 ac; 2,593 ha). See paragraph (k)(212)(ii) of this section for the map of this unit.

(214) Hawaii 44–*Pittosporum hawaiiense*-s (6,406 ac; 2,593 ha). See paragraph (k)(212)(ii) of this section for the map of this unit.

(215) Hawaii 44–*Schiedea diffusa* ssp. *macraei*-r (6,406 ac; 2,593 ha). See paragraph (k)(212)(ii) of this section for the map of this unit.

(216) Hawaii 44–*Stenogyne cranwelliae*-r (6,406 ac; 2,593 ha). See paragraph (k)(212)(ii) of this section for the map of this unit.

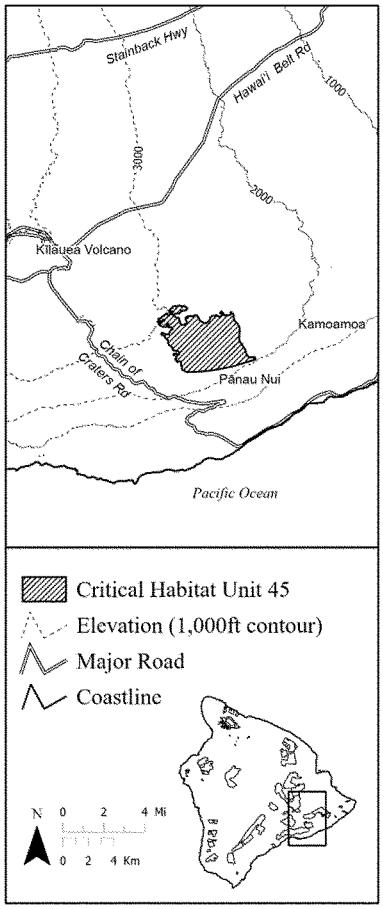
(217) Hawaii 45–*Cyrtandra wagneri*-k (5,494 ac; 2,223 ha).

(i) This unit is also critical habitat for Hawaii 45–*Phyllostegia floribunda*-q and Hawaii 45–*Pittosporum hawaiiense*-t (see paragraphs (k)(218) and (k)(219), respectively, of this section).

(ii) Map 114 follows:

Map 114

Hawaii 45–*Cyrtandra wagneri*-k, Hawaii 45–*Phyllostegia floribunda*-q, Hawaii 45–*Pittosporum hawaiiense*-t



(218) Hawaii 45–*Phyllostegia floribunda*-q (5,494 ac; 2,223 ha). See paragraph (k)(217)(ii) of this section for the map of this unit.

(219) Hawaii 45–*Pittosporum hawaiiense*-t (5,494 ac; 2,223 ha). See paragraph (k)(217)(ii) of this section for the map of this unit.

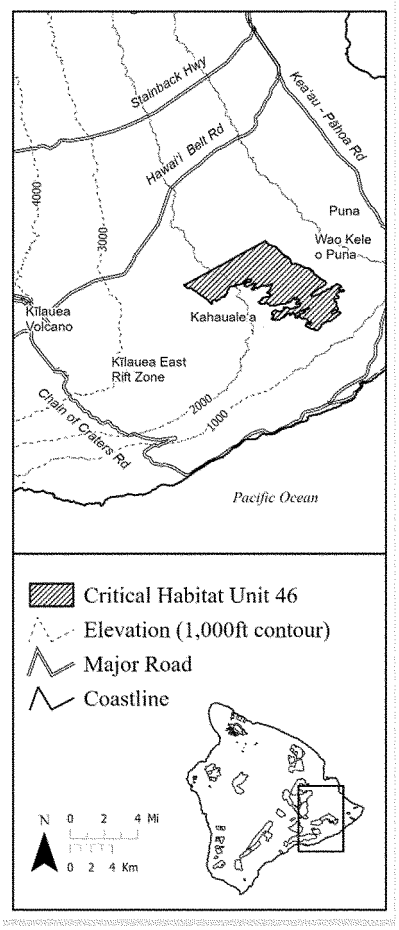
(220) Hawaii 46–*Cyrtandra nanawaleensis*-b (12,219 ac; 4,945 ha)

(i) This unit is also critical habitat for Hawaii 46–*Cyrtandra wagneri*-l and Hawaii 46–*Phyllostegia floribunda*-r (see paragraphs (k)(221) and (k)(222), respectively, of this section).

(ii) Map 115 follows:

Map 115

Hawaii 46–*Cyrtandra nanawaleensis*-b, Hawaii 46–*Cyrtandra wagneri*-l, Hawaii 46–*Phyllostegia floribunda*-r



(221) Hawaii 46–*Cyrtandra wagneri*-l (12,219 ac; 4,945 ha). See paragraph (k)(220)(ii) of this section for the map of this unit.

(222) Hawaii 46–*Phyllostegia floribunda*-r (12,219 ac; 4,945 ha). See paragraph (k)(220)(ii) of this section for the map of this unit.

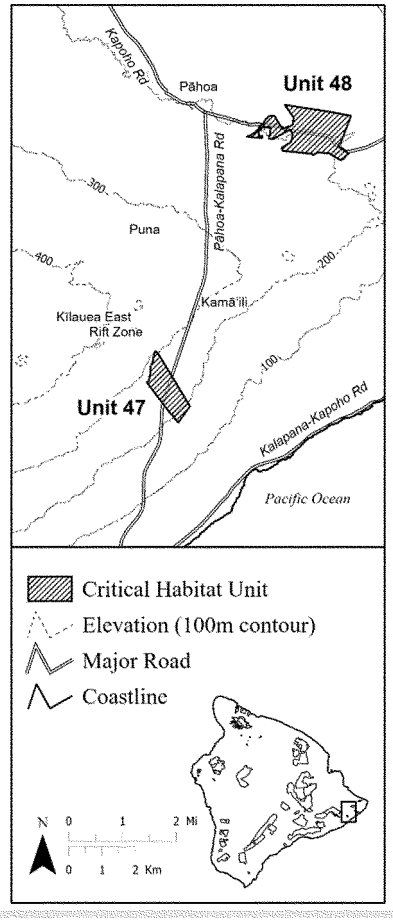
(223) Hawaii 47–*Cyrtandra nanawaleensis*-c (274 ac; 111 ha)

(i) [Reserved].

(ii) Map 116 follows:

Map 116

Hawaii 47–*Cyrtandra nanawaleensis*-c, Hawaii 48–*Cyrtandra nanawaleensis*-d



(224) Hawaii 48–*Cyrtandra nanawaleensis*-d (589 ac; 238 ha). See paragraph (k)(223)(ii) of this section for the map of this unit.

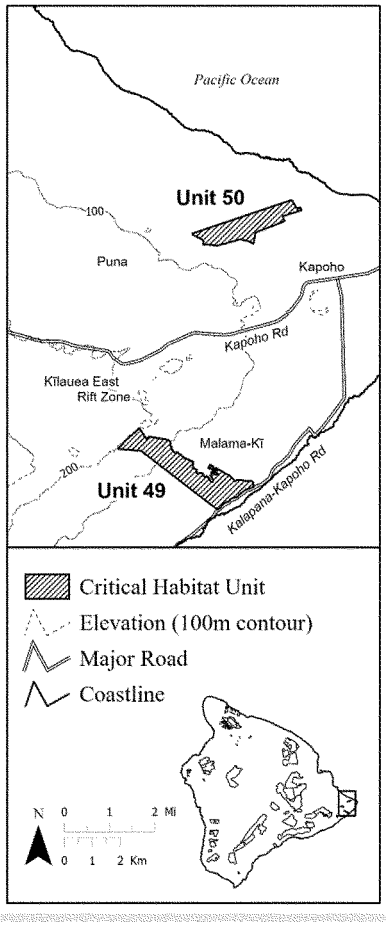
(225) Hawaii 49–*Cyrtandra nanawaleensis*-e (875 ac; 354 ha)

(i) [Reserved].

(ii) Map 117 follows:

Map 117

Hawaii 49–*Cyrtandra nanawaleensis*-e, Hawaii 50–*Cyrtandra nanawaleensis*-f



(226) Hawaii 50–*Cyrtandra nanawaleensis*-f (562 ac; 227 ha). See paragraph (k)(225)(ii) of this section for the map of this unit.

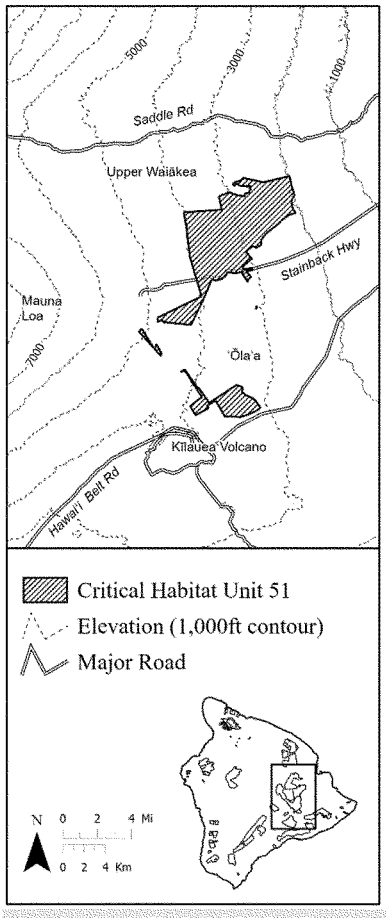
(227) Hawaii 51–*Cyanea tritomantha*-i (17,865 ac; 7,230 ha)

(i) This unit is also critical habitat for Hawaii 51–*Cyrtandra wagneri*-m, Hawaii 51–*Phyllostegia floribunda*-s, Hawaii 51–*Pittosporum hawaiiense*-u, Hawaii 51–*Schiedea diffusa* ssp. *macraei*-s, and Hawaii 51–*Stenogyne cranwelliae*-s (see paragraphs (k)(228), (k)(229), (k)(230), (k)(231), and (k)(232), respectively, of this section).

(ii) Map 118 follows:

Map 118

Hawaii 51–*Cyanea tritomantha*-i, Hawaii 51–*Cyrtandra wagneri*-m, Hawaii 51–*Phyllostegia floribunda*-s, Hawaii 51–*Pittosporum hawaiiense*-u, Hawaii 51–*Schiedea diffusa* ssp. *macraei*-s, Hawaii 51–*Stenogyne cranwelliae*-s



(228) Hawaii 51–*Cyrtandra wagneri*-m (17,865 ac; 7,230 ha). See paragraph (k)(227)(ii) of this section for the map of this unit.

(229) Hawaii 51–*Phyllostegia floribunda*-s (17,865 ac; 7,230 ha). See paragraph (k)(227)(ii) of this section for the map of this unit.

(230) Hawaii 51–*Pittosporum hawaiiense*-u (17,865 ac; 7,230 ha). See paragraph (k)(227)(ii) of this section for the map of this unit.

(231) Hawaii 51–*Schiedea diffusa* ssp. *macraei*-s (17,865 ac; 7,230 ha). See paragraph (k)(227)(ii) of this section for the map of this unit.

(232) Hawaii 51–*Stenogyne cranwelliae*-s (17,865 ac; 7,230 ha). See paragraph (k)(227)(ii) of this section for the map of this unit.

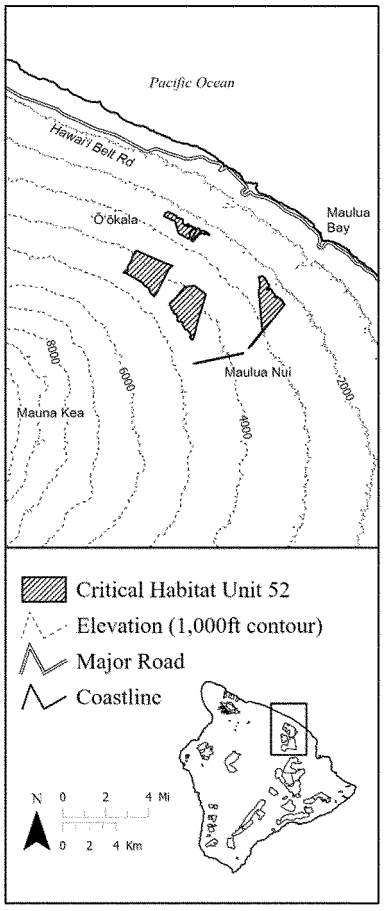
(233) Hawaii 52–*Cyanea tritomantha*-j (4,213 ac; 1,705 ha).

(i) This unit is also critical habitat for Hawaii 52–*Cyrtandra wagneri*-n, Hawaii 52–*Melicope remyi*-d, Hawaii 52–*Phyllostegia floribunda*-t, Hawaii 52–*Pittosporum hawaiiense*-v, Hawaii 52–*Schiedea diffusa* ssp. *macraei*-t, and Hawaii 52–*Stenogyne cranwelliae*-t (see paragraphs (k)(234), (k)(235), (k)(236), (k)(237), (k)(238), and (k)(239), respectively, of this section).

(ii) Map 119 follows:

Map 119

Hawaii 52–*Cyanea tritomantha*-j, Hawaii 52–*Cyrtandra wagneri*-n, Hawaii 52–*Melicope remyi*-d, Hawaii 52–*Phyllostegia floribunda*-t, Hawaii 52–*Pittosporum hawaiiense*-v, Hawaii 52–*Schiedea diffusa* ssp. *macraei*-t, Hawaii 52–*Stenogyne cranwelliae*-t



(234) Hawaii 52–*Cyrtandra wagneri*-n (4,213 ac; 1,705 ha). See paragraph (k)(233)(ii) of this section for the map of this unit.

(235) Hawaii 52–*Melicope remyi*-d (4,213 ac; 1,705 ha). See paragraph (k)(233)(ii) of this section for the map of this unit.

(236) Hawaii 52–*Phyllostegia floribunda*-t (4,213 ac; 1,705 ha). See paragraph (k)(233)(ii) of this section for the map of this unit.

(237) Hawaii 52–*Pittosporum hawaiiense*-v (4,213 ac; 1,705 ha). See paragraph (k)(233)(ii) of this section for the map of this unit.

(238) Hawaii 52–*Schiedea diffusa* ssp. *macraei*-t (4,213 ac; 1,705 ha). See paragraph (k)(233)(ii) of this section for the map of this unit.

(239) Hawaii 52–*Stenogyne cranwelliae*-t (4,213 ac; 1,705 ha). See paragraph (k)(233)(ii) of this section for the map of this unit.

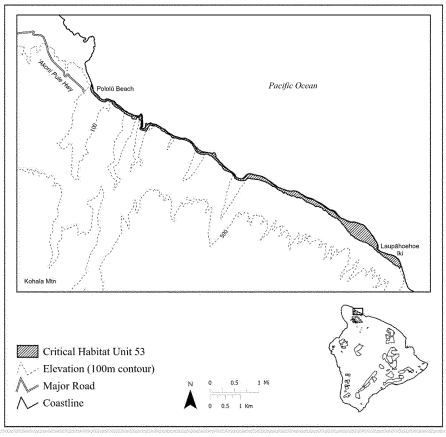
(240) Hawaii 53–*Bidens hillebrandiana* ssp. *hillebrandiana*-b (325 ac; 132 ha)

(i) [Reserved].

(ii) Map 120 follows:

Map 120

Hawaii 53–*Bidens hillebrandiana* ssp. *hillebrandiana*-b



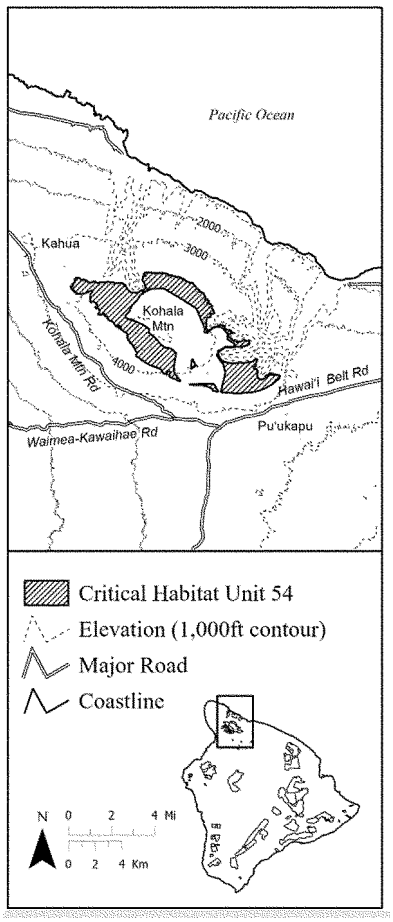
(241) Hawaii 54–*Cyanea tritomantha*-k (7,651 ac; 3,096 ha)

(i) This unit is also critical habitat for Hawaii 54–*Melicope remyi*-e, Hawaii 54–*Phyllostegia floribunda*-u, Hawaii 54–*Pittosporum hawaiiense*-w, Hawaii 54–*Schiedea diffusa* ssp. *macraei*-u, and Hawaii 54–*Stenogyne cranwelliae*-u (see paragraphs (k)(242), (k)(243), (k)(244), (k)(245), and (k)(246), respectively, of this section).

(ii) Map 121 follows:

Map 121

Hawaii 54–*Cyanea tritomantha*-k, Hawaii 54–*Melicope remyi*-e, Hawaii 54–*Phyllostegia floribunda*-u, Hawaii 54–*Pittosporum hawaiiense*-w, Hawaii 54–*Schiedea diffusa* ssp. *macraei*-u, Hawaii 54–*Stenogyne cranwelliae*-u



(242) Hawaii 54–*Melicope remyi*-e (7,651 ac; 3,096 ha). See paragraph (k)(241)(ii) of this section for the map of this unit.

(243) Hawaii 54–*Phyllostegia floribunda*-u (7,651 ac; 3,096 ha). See paragraph (k)(241)(ii) of this section for the map of this unit.

(244) Hawaii 54–*Pittosporum hawaiiense*-w (7,651 ac; 3,096 ha). See paragraph (k)(241)(ii) of this section for the map of this unit.

(245) Hawaii 54–*Schiedea diffusa* ssp. *macraei*-u (7,651 ac; 3,096 ha). See paragraph (k)(241)(ii) of this section for the map of this unit.

(246) Hawaii 54–*Stenogyne cranwelliae*-u (7,651 ac; 3,096 ha). See paragraph (k)(241)(ii) of this section for the map of this unit.

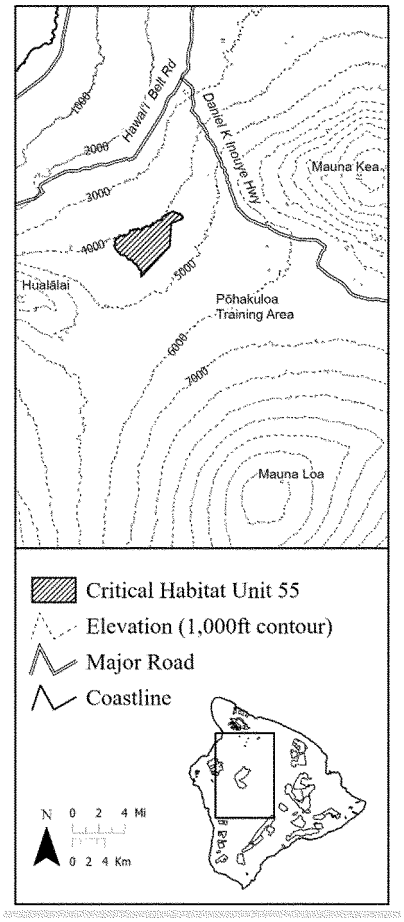
(247) Hawaii 55–*Schiedea hawaiiensis*-a (6,822 ac; 2,761 ha)

(i) [Reserved].

(ii) Map 122 follows:

Map 122

Hawaii 55–*Schiedea hawaiiensis*-a



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(248) Table of Protected Species Within Each Critical Habitat Unit for the Island of Hawaii.

Unit name	Species occupied	Species unoccupied
Hawaii 1—*Clermontia lindseyana*–a	*Clermontia lindseyana*	*Clermontia lindseyana.*
Hawaii 1—*Clermontia peleana*–a	*Clermontia peleana*	*Clermontia peleana.*
Hawaii 1—*Clermontia pyrularia*–a		*Clermontia pyrularia.*
Hawaii 1—*Cyanea shipmanii*–a	*Cyanea shipmanii*	*Cyanea shipmanii.*
Hawaii 1—*Phyllostegia racemosa*–a	*Phyllostegia racemosa*	*Phyllostegia racemosa.*
Hawaii 2—*Clermontia lindseyana*–b	*Clermontia lindseyana*	*Clermontia lindseyana.*
Hawaii 2—*Clermontia pyrularia*–b	*Clermontia pyrularia*	*Clermontia pyrularia.*
Hawaii 2—*Phyllostegia racemosa*–b	*Phyllostegia racemosa*	*Phyllostegia racemosa.*
Hawaii 3—*Clermontia peleana*–b	*Clermontia peleana*	*Clermontia peleana.*
Hawaii 3—*Cyanea platyphylla*–a	*Cyanea platyphylla*	*Cyanea platyphylla.*
Hawaii 3—*Cyanea tritomantha*–a	*Cyanea tritomantha*	*Cyanea tritomantha.*
Hawaii 3—*Cyrtandra giffardii*–a	*Cyrtandra giffardii*	*Cyrtandra giffardii.*
Hawaii 3—*Cyrtandra tintinnabula*–a	*Cyrtandra tintinnabula*	*Cyrtandra tintinnabula.*
Hawaii 3—*Cyrtandra wagneri*–a	*Cyrtandra wagneri*	*Cyrtandra wagneri.*
Hawaii 3—*Melicope remyi*–a	*Melicope remyi*	*Melicope remyi.*
Hawaii 3—*Phyllostegia floribunda*–a	*Phyllostegia floribunda*	*Phyllostegia floribunda.*
Hawaii 3—*Phyllostegia warshaueri*–a	*Phyllostegia warshaueri*	*Phyllostegia warshaueri.*
Hawaii 3—*Pittosporum hawaiiense*–a		*Pittosporum hawaiiense.*
Hawaii 3—*Schiedea diffusa* ssp. *macraei*–a		*Schiedea diffusa* ssp. *macraei.*
Hawaii 3—*Stenogyne cranwelliae*–a	*Stenogyne cranwelliae*	*Stenogyne cranwelliae.*
Hawaii 4—*Isodendrion hosakae*–a		*Isodendrion hosakae.*
Hawaii 4—*Isodendrion hosakae*–b		*Isodendrion hosakae.*
Hawaii 4—*Isodendrion hosakae*–c		*Isodendrion hosakae.*
Hawaii 4—*Isodendrion hosakae*–d		*Isodendrion hosakae.*
Hawaii 4—*Isodendrion hosakae*–e		*Isodendrion hosakae.*
Hawaii 4—*Isodendrion hosakae*–f	*Isodendrion hosakae*	*Isodendrion hosakae.*
Hawaii 4—*Vigna o-wahuensis*–a		*Vigna o-wahuensis.*
Hawaii 4—*Vigna o-wahuensis*–b		*Vigna o-wahuensis.*
Hawaii 4—*Vigna o-wahuensis*–c		*Vigna o-wahuensis.*
Hawaii 5—*Nothocestrum breviflorum*–a		*Nothocestrum breviflorum.*

Unit name	Species occupied	Species unoccupied
Hawaii 6—*Bidens hillebrandiana* ssp. *hillebrandiana*–a.	*Bidens hillebrandiana* ssp. *hillebrandiana*	*Bidens hillebrandiana* ssp. *hillebrandiana.*
Hawaii 6—*Nothocestrum breviflorum*–b	*Nothocestrum breviflorum*	*Nothocestrum breviflorum.*
Hawaii 7—*Pleomele hawaiiensis*–a	*Pleomele hawaiiensis*	*Pleomele hawaiiensis.*
Hawaii 8—*Clermontia drepanomorpha*–a	*Clermontia drepanomorpha*	*Clermontia drepanomorpha.*
Hawaii 8—*Cyanea tritomantha*–b	*Cyanea tritomantha*	*Cyanea tritomantha.*
Hawaii 8—*Melicope remyi*–b		*Melicope remyi.*
Hawaii 8—*Phyllostegia floribunda*–b		*Phyllostegia floribunda.*
Hawaii 8—*Phyllostegia warshaueri*–b	*Phyllostegia warshaueri*	*Phyllostegia warshaueri.*
Hawaii 8—*Pittosporum hawaiiense*–b,	*Pittosporum hawaiiense*	*Pittosporum hawaiiense.*
Hawaii 8—*Schiedea diffusa* ssp. *macraei*–b	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei.*
Hawaii 8—*Stenogyne cranwelliae*–b	*Stenogyne cranwelliae*	*Stenogyne cranwelliae.*
Hawaii 9—*Achyranthes mutica*–a		*Achyranthes mutica.*
Hawaii 9—*Achyranthes mutica*–b	*Achyranthes mutica*	*Achyranthes mutica.*
Hawaii 9—*Achyranthes mutica*–c		*Achyranthes mutica.*
Hawaii 9—*Achyranthes mutica*–d		*Achyranthes mutica.*
Hawaii 9—*Achyranthes mutica*–e		*Achyranthes mutica.*
Hawaii 9—*Achyranthes mutica*–f		*Achyranthes mutica.*
Hawaii 9—*Achyranthes mutica*–g		*Achyranthes mutica.*
Hawaii 9—*Achyranthes mutica*–h		*Achyranthes mutica.*
Hawaii 9—*Achyranthes mutica*–i		*Achyranthes mutica.*
Hawaii 9—*Achyranthes mutica*–j		*Achyranthes mutica.*
Hawaii 9—*Cyanea tritomantha*–c	*Cyanea tritomantha*	*Cyanea tritomantha.*
Hawaii 9—*Melicope remyi*–c		*Melicope remyi.*
Hawaii 9—*Phyllostegia floribunda*–c		*Phyllostegia floribunda.*
Hawaii 9—*Pittosporum hawaiiense*–c	*Pittosporum hawaiiense*	*Pittosporum hawaiiense.*
Hawaii 9—*Schiedea diffusa* ssp. *macraei*–c	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei.*
Hawaii 9—*Stenogyne cranwelliae*–c	*Stenogyne cranwelliae*	*Stenogyne cranwelliae.*
Hawaii 10—*Argyroxiphium kauense*–a		*Argyroxiphium kauense.*
Hawaii 10—*Bidens micrantha* ssp. *ctenophylla*–a.		*Bidens micrantha* ssp. *ctenophylla.*
Hawaii 10—*Bonamia menziesii*–a		*Bonamia menziesii.*
Hawaii 10—*Colubrina oppositifolia*–a	*Colubrina oppositifolia*	*Colubrina oppositifolia.*
Hawaii 10—*Delissea undulata*–a		*Delissea undulata.*
Hawaii 10—*Delissea undulata*–b	*Delissea undulata*	*Delissea undulata.*
Hawaii 10—*Hibiscadelphus hualalaiensis*–a	*Hibiscadelphus hualalaiensis*	*Hibiscadelphus hualalaiensis.*
Hawaii 10—*Hibiscus brackenridgei*–a	*Hibiscus brackenridgei*	*Hibiscus brackenridgei.*
Hawaii 10—*Isodendrion pyrifolium*–a		*Isodendrion pyrifolium.*
Hawaii 10—*Mezoneuron kavaiense*–a	*Mezoneuron kavaiense*	*Mezoneuron kavaiense.*
Hawaii 10—*Neraudia ovata*–a		*Neraudia ovata.*
Hawaii 10—*Nothocestrum breviflorum*–c	*Nothocestrum breviflorum*	*Nothocestrum breviflorum.*
Hawaii 10—*Pleomele hawaiiensis*–b	*Pleomele hawaiiensis*	*Pleomele hawaiiensis.*
Hawaii 10—*Solanum incompletum*–a		*Solanum incompletum.*
Hawaii 10—*Zanthoxylum dipetalum* ssp. *tomentosum*–a.	*Zanthoxylum dipetalum* ssp. *tomentosum*	*Zanthoxylum dipetalum* ssp. *tomentosum.*
Hawaii 11—*Cyanea hamatiflora* ssp. *carlsonii*–a	*Cyanea hamatiflora* ssp. *carlsonii*	*Cyanea hamatiflora* ssp. *carlsonii.*
Hawaii 11—*Solanum incompletum*–b		*Solanum incompletum.*
Hawaii 14—*Cyanea hamatiflora* ssp. *carlsonii*–b		*Cyanea hamatiflora* ssp. *carlsonii.*
Hawaii 15—*Cyanea hamatiflora* ssp. *carlsonii*–c		*Cyanea hamatiflora* ssp. *carlsonii.*
Hawaii 15—*Cyanea marksii*–a-Section 4	*Cyanea marksii*	*Cyanea marksii.*
Hawaii 15—*Cyanea marksii*–b-Section 5	*Cyanea marksii*	*Cyanea marksii.*
Hawaii 15—*Cyanea stictophylla*–a	*Cyanea stictophylla*	*Cyanea stictophylla.*
Hawaii 15—*Phyllostegia floribunda*–d-Section 4	*Phyllostegia floribunda*	*Phyllostegia floribunda.*
Hawaii 15—*Phyllostegia floribunda*–e-Section 5		*Phyllostegia floribunda.*
Hawaii 15—*Pittosporum hawaiiense*–d-Section 4.	*Pittosporum hawaiiense*	*Pittosporum hawaiiense.*
Hawaii 15—*Pittosporum hawaiiense*–e-Section 5.		*Pittosporum hawaiiense.*
Hawaii 15—*Schiedea diffusa* ssp. *macraei*–d-Section 4.		*Schiedea diffusa* ssp. *macraei.*
Hawaii 15—*Schiedea diffusa* ssp. *macraei*–e-Section 5.		*Schiedea diffusa* ssp. *macraei.*
Hawaii 15—*Stenogyne cranwelliae*–d-Section 4		*Stenogyne cranwelliae.*
Hawaii 15—*Stenogyne cranwelliae*–e-Section 5		*Stenogyne cranwelliae.*
Hawaii 16—*Cyanea hamatiflora* ssp. *carlsonii*–d	*Cyanea hamatiflora* ssp. *carlsonii*	*Cyanea hamatiflora* ssp. *carlsonii.*
Hawaii 16—*Cyanea marksii*–c	*Cyanea marksii*	*Cyanea marksii.*
Hawaii 16—*Cyanea stictophylla*–b	*Cyanea stictophylla*	*Cyanea stictophylla.*
Hawaii 16—*Phyllostegia floribunda*–f	*Phyllostegia floribunda*	*Phyllostegia floribunda.*
Hawaii 16—*Pittosporum hawaiiense*–f		*Pittosporum hawaiiense.*
Hawaii 16—*Schiedea diffusa* ssp. *macraei*–f		*Schiedea diffusa* ssp. *macraei.*
Hawaii 16—*Stenogyne cranwelliae*–f		*Stenogyne cranwelliae.*
Hawaii 17—*Diellia erecta*–a	*Diellia erecta*	*Diellia erecta.*
Hawaii 17—*Flueggea neowawraea*–a	*Flueggea neowawraea*	*Flueggea neowawraea.*
Hawaii 18—*Colubrina oppositifolia*–b	*Colubrina oppositifolia*	*Colubrina oppositifolia.*

Unit name	Species occupied	Species unoccupied
Hawaii 18—*Diellia erecta*–b	*Diellia erecta*	*Diellia erecta.*
Hawaii 18—*Flueggea neowawraea*–b	*Flueggea neowawraea*	*Flueggea neowawraea.*
Hawaii 18—*Gouania vitifolia*–a	*Gouania vitifolia*	*Gouania vitifolia.*
Hawaii 18—*Neraudia ovata*–d	*Neraudia ovata*	*Neraudia ovata.*
Hawaii 18—*Pleomele hawaiiensis*–c	*Pleomele hawaiiensis*	*Pleomele hawaiiensis.*
Hawaii 19—*Mariscus fauriei*–a	*Mariscus fauriei*	*Mariscus fauriei.*
Hawaii 20—*Sesbania tomentosa*–a	*Sesbania tomentosa*	*Sesbania tomentosa.*
Hawaii 21—*Ischaemum byrone*–a		*Ischaemum byrone.*
Hawaii 22—*Ischaemum byrone*–b	*Ischaemum byrone*	*Ischaemum byrone.*
Hawaii 23—*Cyrtandra wagneri*–b		*Cyrtandra wagneri.*
Hawaii 23—*Phyllostegia floribunda*–g	*Phyllostegia floribunda*	*Phyllostegia floribunda.*
Hawaii 23—*Pittosporum hawaiiense*–g	*Pittosporum hawaiiense*	*Pittosporum hawaiiense.*
Hawaii 23—*Pleomele hawaiiensis*–d	*Pleomele hawaiiensis*	*Pleomele hawaiiensis.*
Hawaii 23—*Sesbania tomentosa*–b	*Sesbania tomentosa*	*Sesbania tomentosa.*
Hawaii 24—*Argyroxiphium kauense*–b	*Argyroxiphium kauense*	*Argyroxiphium kauense.*
Hawaii 24—*Asplenium fragile* var. *insulare*–a	*Asplenium fragile* var. *insulare*	*Asplenium fragile* var. *insulare.*
Hawaii 24—*Cyanea stictophylla*–c		*Cyanea stictophylla.*
Hawaii 24—*Cyanea tritomantha*–d-Section 8	*Cyanea tritomantha*	*Cyanea tritomantha.*
Hawaii 24—*Cyrtandra wagneri*–c-Section 8		*Cyrtandra wagneri.*
Hawaii 24—*Cyrtandra wagneri*–d-Section 9		*Cyrtandra wagneri.*
Hawaii 24—*Melicope zahlbruckneri*–a		*Melicope zahlbruckneri.*
Hawaii 24—*Phyllostegia velutina*–a	*Phyllostegia velutina*	*Phyllostegia velutina.*
Hawaii 24—*Pittosporum hawaiiense*–h-Section 8.	*Pittosporum hawaiiense*	*Pittosporum hawaiiense.*
Hawaii 24—*Pittosporum hawaiiense*–i-Section 9	*Pittosporum hawaiiense*	*Pittosporum hawaiiense.*
Hawaii 24—*Plantago hawaiensis*–a	*Plantago hawaiensis*	*Plantago hawaiensis.*
Hawaii 24—*Schiedea diffusa* ssp. *macraei*–g-Section 8.	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei.*
Hawaii 24—*Schiedea diffusa* ssp. *macraei*–h-Section 9.	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei.*
Hawaii 24—*Stenogyne cranwelliae*–g-Section 8		*Stenogyne cranwelliae.*
Hawaii 24—*Stenogyne cranwelliae*–h-Section 9		*Stenogyne cranwelliae.*
Hawaii 25—*Argyroxiphium kauense*–c	*Argyroxiphium kauense*	*Argyroxiphium kauense.*
Hawaii 25—*Plantago hawaiensis*–b	*Plantago hawaiensis*	*Plantago hawaiensis.*
Hawaii 25—*Silene hawaiiensis*–a	*Silene hawaiiensis*	*Silene hawaiiensis.*
Hawaii 26—*Hibiscadelphus giffardianus*–a	*Hibiscadelphus giffardianus*	*Hibiscadelphus giffardianus.*
Hawaii 26—*Melicope zahlbruckneri*–b	*Melicope zahlbruckneri*	*Melicope zahlbruckneri.*
Hawaii 27—*Portulaca sclerocarpa*–a	*Portulaca sclerocarpa*	*Portulaca sclerocarpa.*
Hawaii 27—*Silene hawaiiensis*–b	*Silene hawaiiensis*	*Silene hawaiiensis.*
Hawaii 28—*Adenophorus periens*–a	*Adenophorus periens*	*Adenophorus periens.*
Hawaii 28—*Cyrtandra nanawaleensis*–a	*Cyrtandra nanawaleensis*	*Cyrtandra nanawaleensis.*
Hawaii 28—*Cyrtandra wagneri*–e		*Cyrtandra wagneri.*
Hawaii 28—*Phyllostegia floribunda*–h	*Phyllostegia floribunda*	*Phyllostegia floribunda.*
Hawaii 29—*Clermontia peleana*–c	*Clermontia peleana*	*Clermontia peleana.*
Hawaii 29—*Cyanea platyphylla*–b	*Cyanea platyphylla*	*Cyanea platyphylla.*
Hawaii 29—*Cyanea tritomantha*-e	*Cyanea tritomantha*	*Cyanea tritomantha.*
Hawaii 29—*Cyrtandra giffardii*–b		*Cyrtandra giffardii.*
Hawaii 29—*Cyrtandra tintinnabula*–b		*Cyrtandra tintinnabula.*
Hawaii 29—*Cyrtandra wagneri*–f		*Cyrtandra wagneri.*
Hawaii 29—*Phyllostegia floribunda*–i	*Phyllostegia floribunda*	*Phyllostegia floribunda.*
Hawaii 29—*Pittosporum hawaiiense*–j	*Pittosporum hawaiiense*	*Pittosporum hawaiiense.*
Hawaii 29—*Schiedea diffusa* ssp. *macraei*–i	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei.*
Hawaii 29—*Stenogyne cranwelliae*–i		*Stenogyne cranwelliae.*
Hawaii 30—*Argyroxiphium kauense*–d	*Argyroxiphium kauense*	*Argyroxiphium kauense.*
Hawaii 30—*Clermontia lindseyana*–c	*Clermontia lindseyana*	*Clermontia lindseyana.*
Hawaii 30—*Cyanea shipmanii*–b	*Cyanea shipmanii*	*Cyanea shipmanii.*
Hawaii 30—*Cyanea shipmanii*–c		*Cyanea shipmanii.*
Hawaii 30—*Cyanea stictophylla*–d		*Cyanea stictophylla.*
Hawaii 30—*Cyanea tritomantha*–f	*Cyanea tritomantha*	*Cyanea tritomantha.*
Hawaii 30—*Cyrtandra giffardii*–c	*Cyrtandra giffardii*	*Cyrtandra giffardii.*
Hawaii 30—*Cyrtandra wagneri*–g		*Cyrtandra wagneri.*
Hawaii 30—*Phyllostegia floribunda*–j	*Phyllostegia floribunda*	*Phyllostegia floribunda.*
Hawaii 30—*Phyllostegia racemosa*–c		*Phyllostegia racemosa.*
Hawaii 30—*Phyllostegia velutina*–b	*Phyllostegia velutina*	*Phyllostegia velutina.*
Hawaii 30—*Pittosporum hawaiiense*–k	*Pittosporum hawaiiense*	*Pittosporum hawaiiense.*
Hawaii 30—*Plantago hawaiensis*–c	*Plantago hawaiensis*	*Plantago hawaiensis.*
Hawaii 30—*Schiedea diffusa* ssp. *macraei*–j	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei.*
Hawaii 30—*Sicyos alba*–a	*Sicyos alba*	*Sicyos alba.*
Hawaii 30—*Stenogyne cranwelliae*–j		*Stenogyne cranwelliae.*
Hawaii 31—*Bidens micrantha* ssp. *ctenophylla*–b.		*Bidens micrantha* ssp. *ctenophylla.*
Hawaii 31—*Isodendrion pyrifolium*–b		*Isodendrion pyrifolium.*
Hawaii 31—*Mezoneuron kavaiense*–b	*Mezoneuron kavaiense*	*Mezoneuron kavaiense.*
Hawaii 33—*Bidens micrantha* ssp. *ctenophylla*–d.		*Bidens micrantha* ssp. *ctenophylla*

Unit name	Species occupied	Species unoccupied
Hawaii 33—*Isodendrion pyrifolium*–d		*Isodendrion pyrifolium.*
Hawaii 33—*Mezoneuron kavaiense*–d		*Mezoneuron kavaiense.*
Hawaii 34—*Bidens micrantha* ssp. *ctenophylla*–e.		*Bidens micrantha* ssp. *ctenophylla.*
Hawaii 34—*Isodendrion pyrifolium*–e		*Isodendrion pyrifolium.*
Hawaii 34—*Mezoneuron kavaiense*–e		*Mezoneuron kavaiense.*
Hawaii 36—*Bidens micrantha* ssp. *ctenophylla*–g.	*Bidens micrantha* ssp. *ctenophylla*	*Bidens micrantha* ssp. *ctenophylla.*
Hawaii 36—*Isodendrion pyrifolium*–g		*Isodendrion pyrifolium.*
Hawaii 37—*Cyanea marksii*–d	*Cyanea marksii*	*Cyanea marksii.*
Hawaii 37—*Phyllostegia floribunda*–k		*Phyllostegia floribunda.*
Hawaii 37—*Pittosporum hawaiiense*–l		*Pittosporum hawaiiense.*
Hawaii 37—*Schiedea diffusa* ssp. *macraei*–k		*Schiedea diffusa* ssp. *macraei.*
Hawaii 37—*Stenogyne cranwelliae*–k		*Stenogyne cranwelliae.*
Hawaii 38—*Cyanea marksii*–e	*Cyanea marksii*	*Cyanea marksii.*
Hawaii 38—*Phyllostegia floribunda*–l		*Phyllostegia floribunda.*
Hawaii 38—*Pittosporum hawaiiense*–m		*Pittosporum hawaiiense.*
Hawaii 38—*Schiedea diffusa* ssp. *macraei*–l		*Schiedea diffusa* ssp. *macraei.*
Hawaii 38—*Stenogyne cranwelliae*–l		*Stenogyne cranwelliae.*
Hawaii 39—*Cyanea marksii*–f	*Cyanea marksii*	*Cyanea marksii.*
Hawaii 39—*Phyllostegia floribunda*–m	*Phyllostegia floribunda*	*Phyllostegia floribunda.*
Hawaii 39—*Pittosporum hawaiiense*–n	*Pittosporum hawaiiense*	*Pittosporum hawaiiense.*
Hawaii 39—*Schiedea diffusa* ssp. *macraei*–m		*Schiedea diffusa* ssp. *macraei.*
Hawaii 39—*Stenogyne cranwelliae*–m		*Stenogyne cranwelliae.*
Hawaii 40—*Cyanea marksii*–g	*Cyanea marksii*	*Cyanea marksii.*
Hawaii 40—*Phyllostegia floribunda*–n	*Phyllostegia floribunda*	*Phyllostegia floribunda.*
Hawaii 40—*Pittosporum hawaiiense*–o		*Pittosporum hawaiiense.*
Hawaii 40—*Schiedea diffusa ssp. macraei*–n		*Schiedea diffusa ssp. macraei.*
Hawaii 40—*Stenogyne cranwelliae*–n		*Stenogyne cranwelliae.*
Hawaii 41—*Cyanea marksii*–h	*Cyanea marksii*	*Cyanea marksii.*
Hawaii 41—*Phyllostegia floribunda*–o	*Phyllostegia floribunda*	*Phyllostegia floribunda.*
Hawaii 41—*Pittosporum hawaiiense*–p	*Pittosporum hawaiiense*	*Pittosporum hawaiiense.*
Hawaii 41—*Schiedea diffusa* ssp. *macraei*–o		*Schiedea diffusa* ssp. *macraei.*
Hawaii 41—*Stenogyne cranwelliae*–o		*Stenogyne cranwelliae.*
Hawaii 42—*Cyanea tritomantha*–g		*Cyanea tritomantha.*
Hawaii 42—*Cyrtandra wagneri*–h		*Cyrtandra wagneri.*
Hawaii 42—*Phyllostegia floribunda*–p		*Phyllostegia floribunda.*
Hawaii 42—*Pittosporum hawaiiense*–q	*Pittosporum hawaiiense*	*Pittosporum hawaiiense.*
Hawaii 42—*Schiedea diffusa* ssp. *macraei*–p	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei.*
Hawaii 42—*Stenogyne cranwelliae*–p		*Stenogyne cranwelliae.*
Hawaii 43—*Cyrtandra wagneri*–i		*Cyrtandra wagneri.*
Hawaii 43—*Pittosporum hawaiiense*–r	*Pittosporum hawaiiense*	*Pittosporum hawaiiense.*
Hawaii 43—*Schiedea diffusa* ssp. *macraei*–q	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei.*
Hawaii 43—*Stenogyne cranwelliae*–q		*Stenogyne cranwelliae.*
Hawaii 44—*Cyanea tritomantha*–h	*Cyanea tritomantha*	*Cyanea tritomantha.*
Hawaii 44—*Cyrtandra wagneri*–j		*Cyrtandra wagneri.*
Hawaii 44—*Pittosporum hawaiiense*–s	*Pittosporum hawaiiense*	*Pittosporum hawaiiense.*
Hawaii 44—*Schiedea diffusa* ssp. *macraei*–r	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei.*
Hawaii 44—*Stenogyne cranwelliae*–r		*Stenogyne cranwelliae.*
Hawaii 45—*Cyrtandra wagneri*–k		*Cyrtandra wagneri.*
Hawaii 45—*Phyllostegia floribunda*–q	*Phyllostegia floribunda*	*Phyllostegia floribunda.*
Hawaii 45—*Pittosporum hawaiiense*–t	*Pittosporum hawaiiense*	*Pittosporum hawaiiense.*
Hawaii 46—*Cyrtandra nanawaleensis*–b	*Cyrtandra nanawaleensis*	*Cyrtandra nanawaleensis.*
Hawaii 46—*Cyrtandra wagneri*–l		*Cyrtandra wagneri.*
Hawaii 46—*Phyllostegia floribunda*–r	*Phyllostegia floribunda*	*Phyllostegia floribunda.*
Hawaii 47—*Cyrtandra nanawaleensis*–c	*Cyrtandra nanawaleensis*	*Cyrtandra nanawaleensis.*
Hawaii 48—*Cyrtandra nanawaleensis*–d	*Cyrtandra nanawaleensis*	*Cyrtandra nanawaleensis.*
Hawaii 49—*Cyrtandra nanawaleensis*–e	*Cyrtandra nanawaleensis*	*Cyrtandra nanawaleensis.*
Hawaii 50—*Cyrtandra nanawaleensis*–f	*Cyrtandra nanawaleensis*	*Cyrtandra nanawaleensis.*
Hawaii 51—*Cyanea tritomantha*–i	*Cyanea tritomantha*	*Cyanea tritomantha.*
Hawaii 51—*Cyrtandra wagneri*–m		*Cyrtandra wagneri.*
Hawaii 51—*Phyllostegia floribunda*–s	*Phyllostegia floribunda*	*Phyllostegia floribunda.*
Hawaii 51—*Pittosporum hawaiiense*–u	*Pittosporum hawaiiense*	*Pittosporum hawaiiense.*
Hawaii 51—*Schiedea diffusa* ssp. *macraei*–s	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei.*
Hawaii 51—*Stenogyne cranwelliae*–s		*Stenogyne cranwelliae.*
Hawaii 52—*Cyanea tritomantha*–j	*Cyanea tritomantha*	*Cyanea tritomantha.*
Hawaii 52—*Cyrtandra wagneri*–n	*Cyrtandra wagneri*	*Cyrtandra wagneri.*
Hawaii 52—*Melicope remyi*–d	*Melicope remyi*	*Melicope remyi.*
Hawaii 52—*Phyllostegia floribunda*–t	*Phyllostegia floribunda*	*Phyllostegia floribunda.*
Hawaii 52—*Pittosporum hawaiiense*–v		*Pittosporum hawaiiense.*
Hawaii 52—*Schiedea diffusa* ssp. *macraei*–t		*Schiedea diffusa* ssp. *macraei.*
Hawaii 52—*Stenogyne cranwelliae*–t	*Stenogyne cranwelliae*	*Stenogyne cranwelliae.*
Hawaii 53—*Bidens hillebrandiana* ssp. *hillebrandiana*–b.	*Bidens hillebrandiana* ssp. *hillebrandiana*	*Bidens hillebrandiana* ssp. *hillebrandiana.*

Unit name	Species occupied	Species unoccupied
Hawaii 54—*Cyanea tritomantha*–k	*Cyanea tritomantha*	*Cyanea tritomantha.*
Hawaii 54—*Melicope remyi*–e		*Melicope remyi.*
Hawaii 54—*Phyllostegia floribunda*–u		*Phyllostegia floribunda.*
Hawaii 54—*Pittosporum hawaiiense*–w	*Pittosporum hawaiiense*	*Pittosporum hawaiiense.*
Hawaii 54—*Schiedea diffusa* ssp. *macraei*–u	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei.*
Hawaii 54—*Stenogyne cranwelliae*–u	*Stenogyne cranwelliae*	*Stenogyne cranwelliae.*
Hawaii 55—*Schiedea hawaiiensis*–a		*Schiedea hawaiiensis.*

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(1) *Plants on the island of Hawaii; Constituent elements.*—(1) *Flowering plants.*

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Family Asteraceae: Bidens hillebrandiana ssp. hillebrandiana (KOOKOOLAU)

Hawaii 6–*Bidens hillebrandiana* ssp. *hillebrandiana*-a and Hawaii 53–*Bidens hillebrandiana* ssp. *hillebrandiana*-b, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Bidens hillebrandiana* ssp. *hillebrandiana* on Hawaii Island. In units Hawaii 6–*Bidens hillebrandiana* ssp. *hillebrandiana*-a and Hawaii 53–*Bidens hillebrandiana* ssp. *hillebrandiana*-b, the physical and biological features of critical habitat in coastal ecosystem are:

(i) Elevation: Less than 980 feet (ft) (300 meters (m)).

(ii) Annual precipitation: Less than 47 inches (in) (120 centimeters (cm)) to greater than 98 in (250 cm).

(iii) Substrate: Well-drained talus, calcareous slopes, dunes.

(iv) Canopy contains one or more of the following native plant genera: *Diospyros, Metrosideros, Myoporum, Pritchardia.*

(v) Subcanopy contains one or more of the following native plant genera: *Chenopodium, Gossypium, Heliotropium, Santalum, Scaevola.*

(vi) Understory contains one or more of the following native plant genera: *Eragrostis, Sesuvium, Sida, Sporobolus.*

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Family Campanulaceae: Cyanea marksii (HAHA)

Hawaii 15–*Cyanea marksii*-a-Section 4, Hawaii 15–*Cyanea marksii*-b-Section 5, Hawaii 16–*Cyanea marksii*-c, Hawaii 37–*Cyanea marksii*-d, Hawaii 38–*Cyanea marksii*-e, Hawaii 39–*Cyanea marksii*-f, Hawaii 40–*Cyanea marksii*-g, and Hawaii 41–*Cyanea marksii*-h, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Cyanea marksii* on Hawaii Island. In units Hawaii 15–*Cyanea marksii*-a-Section 4, Hawaii 15–*Cyanea marksii*-b-Section 5, Hawaii 16–*Cyanea marksii*-c, Hawaii 37–*Cyanea marksii*-d, Hawaii 38–*Cyanea marksii*-e, Hawaii 39–*Cyanea marksii*-f, Hawaii 40–*Cyanea marksii*-g, and Hawaii 41–*Cyanea marksii*-h, the physical and biological features of critical habitat in wet forest ecosystem are:

(i) Elevation: Less than 7,300 ft (2,225 m).

(ii) Annual precipitation: Greater than 98 in (250 cm).

(iii) Substrate: Very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.

(iv) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(v) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(vi) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

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Family Campanulaceae: Cyanea tritomantha (AKU)

Hawaii 3–*Cyanea tritomantha*-a, Hawaii 8–*Cyanea tritomantha*-b, Hawaii 9–*Cyanea tritomantha*-c, Hawaii 24–*Cyanea tritomantha*-d, Hawaii 29–*Cyanea tritomantha*-e, Hawaii 30–*Cyanea tritomantha*-f, Hawaii 42–*Cyanea tritomantha*-g, Hawaii 44–*Cyanea tritomantha*-h, Hawaii 51–*Cyanea tritomantha*-i, Hawaii 52–*Cyanea tritomantha*-j, and Hawaii 54–*Cyanea tritomantha*-k, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Cyanea tritomantha* on Hawaii Island.

(i) In units Hawaii 3–*Cyanea tritomantha*-a, Hawaii 24–*Cyanea tritomantha*-d, Hawaii 29–*Cyanea tritomantha*-e, Hawaii 30–*Cyanea tritomantha*-f, Hawaii 42–*Cyanea tritomantha*-g, Hawaii 44–*Cyanea tritomantha*-h, Hawaii 51–*Cyanea tritomantha*-i, and Hawaii 52–*Cyanea tritomantha*-j, the physical and biological features of critical habitat in wet forest ecosystem are:

(A) Elevation: Less than 7,300 ft (2,225 m).

(B) Annual precipitation: Greater than 98 in (250 cm).

(C) Substrate: Very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.

(D) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(E) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(F) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

(ii) In units Hawaii 8–*Cyanea tritomantha*-b, Hawaii 9–*Cyanea tritomantha*-c, and Hawaii 54–*Cyanea tritomantha*-k, the physical and biological features of critical habitat in wet forest ecosystem are those provided above in paragraphs (i)(A) through (F) of this entry, and in wet grassland and shrubland ecosystem are:

(A) Elevation: 660 to 2,950 ft (200 to 900 m).

(B) Annual precipitation: 98 to 197 in (250 to 500 cm).

(C) Substrate: Older, weathered soils to younger, rocky substrates.

(D) Canopy contains one or more of the following native plant genera: *Ilex, Kadua, Melicope, Metrosideros, Myrsine.*

(E) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Dubautia, Freycinetia, Hydrangea, Lobelia, Pipturus, Touchardia, Urera, Vaccinium.*

(F) Understory contains one or more of the following native plant genera: *Carex, Cladium, Deschampsia, Dicranopteris, Eragrostis, Peperomia, Phyllostegia, Scaevola.*

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Family Caryophyllaceae: Schiedea diffusa ssp. macraei (no common name)

Hawaii 3–*Schiedea diffusa* ssp. *macraei*-a, Hawaii 8–*Schiedea diffusa*

ssp. *macraei*-b, Hawaii 9–*Schiedea diffusa* ssp. *macraei*-c, Hawaii 15–*Schiedea diffusa* ssp. *macraei*-d-Section 4, Hawaii 15–*Schiedea diffusa* ssp. *macraei*-e-Section 5, Hawaii 16–*Schiedea diffusa* ssp. *macraei*-f, Hawaii 24–*Schiedea diffusa* ssp. *macraei*-g-Section 8, Hawaii 24–*Schiedea diffusa* ssp. *macraei*-h-Section 9, Hawaii 29–*Schiedea diffusa* ssp. *macraei*-i, Hawaii 30–*Schiedea diffusa* ssp. *macraei*-j, Hawaii 37–*Schiedea diffusa* ssp. *macraei*-k, Hawaii 38–*Schiedea diffusa* ssp. *macraei*-l, Hawaii 39–*Schiedea diffusa* ssp. *macraei*-m, Hawaii 40–*Schiedea diffusa* ssp. *macraei*-n, Hawaii 41–*Schiedea diffusa* ssp. *macraei*-o, Hawaii 42–*Schiedea diffusa* ssp. *macraei*-p, Hawaii 43–*Schiedea diffusa* ssp. *macraei*-q, Hawaii 44–*Schiedea diffusa* ssp. *macraei*-r, Hawaii 51–*Schiedea diffusa* ssp. *macraei*-s, Hawaii 52–*Schiedea diffusa* ssp. *macraei*-t, and Hawaii 54–*Schiedea diffusa* ssp. *macraei*-u, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Schiedea diffusa* ssp. *macraei* on Hawaii Island. In units Hawaii 3–*Schiedea diffusa* ssp. *macraei*-a, Hawaii 8–*Schiedea diffusa* ssp. *macraei*-b, Hawaii 9–*Schiedea diffusa* ssp. *macraei*-c, Hawaii 15–*Schiedea diffusa* ssp. *macraei*-d-Section 4, Hawaii 15–*Schiedea diffusa* ssp. *macraei*-e-Section 5, Hawaii 16–*Schiedea diffusa* ssp. *macraei*-f, Hawaii 24–*Schiedea diffusa* ssp. *macraei*-g-Section 8, Hawaii 24–*Schiedea diffusa* ssp. *macraei*-h-Section 9, Hawaii 29–*Schiedea diffusa* ssp. *macraei*-i, Hawaii 30–*Schiedea diffusa* ssp. *macraei*-j, Hawaii 37–*Schiedea diffusa* ssp. *macraei*-k, Hawaii 38–*Schiedea diffusa* ssp. *macraei*-l, Hawaii 39–*Schiedea diffusa* ssp. *macraei*-m, Hawaii 40–*Schiedea diffusa* ssp. *macraei*-n, Hawaii 41–*Schiedea diffusa* ssp. *macraei*-o, Hawaii 42–*Schiedea diffusa* ssp. *macraei*-p, Hawaii 43–*Schiedea diffusa* ssp. *macraei*-q, Hawaii 44–*Schiedea diffusa* ssp. *macraei*-r, Hawaii 51–*Schiedea diffusa* ssp. *macraei*-s, Hawaii 52–*Schiedea diffusa* ssp. *macraei*-t, and Hawaii 54–*Schiedea diffusa* ssp. *macraei*-u, the physical and biological features of critical habitat in wet forest ecosystem are:

(i) Elevation: Less than 7,300 ft (2,225 m).

(ii) Annual precipitation: Greater than 98 in (250 cm).

(iii) Substrate: Very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.

(iv) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(v) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(vi) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

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Family Caryophyllaceae: Schiedea hawaiiensis (MAOLIOLI)

Hawaii 55–*Schiedea hawaiiensis*-a, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Schiedea hawaiiensis* on Hawaii Island. In unit Hawaii 55–*Schiedea hawaiiensis*-a, the physical and biological features of critical habitat in dry forest ecosystem are:

(i) Elevation: Less than 9,500 ft (2,900 m).

(ii) Annual precipitation: Less than 79 in (200 cm).

(iii) Substrate: Well-drained, sandy loams or loams from volcanic ash or cinder; weathered basaltic lava.

(iv) Canopy contains one or more of the following native plant genera: *Acacia, Colubrina, Diospyros, Erythrina, Melicope, Metrosideros, Myoporum, Myrsine, Sophora.*

(v) Subcanopy contains one or more of the following native plant genera: *Achyranthes, Euphorbia, Leptecophylla, Nototrichium.*

(vi) Understory contains one or more of the following native plant genera: *Dodonaea, Doryopteris, Heteropogon, Pellaea.*

* * * * *

Family Gesneriaceae: Cyrtandra nanawaleensis (HAIWALE)

Hawaii 28–*Cyrtandra nanawaleensis*-a, Hawaii 46–*Cyrtandra nanawaleensis*-b, Hawaii 47–*Cyrtandra nanawaleensis*-c, Hawaii 48–*Cyrtandra nanawaleensis*-d, Hawaii 49–*Cyrtandra nanawaleensis*-e, and Hawaii 50–*Cyrtandra nanawaleensis*-f, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Cyrtandra nanawaleensis* on Hawaii Island.

(i) In units Hawaii 28–*Cyrtandra nanawaleensis*-a, Hawaii 46–*Cyrtandra nanawaleensis*-b, Hawaii 47–*Cyrtandra nanawaleensis*-c, and Hawaii 48–*Cyrtandra nanawaleensis*-d, the physical and biological features of critical habitat in wet forest ecosystem are:

(A) Elevation: Less than 7,300 ft (2,225 m).

(B) Annual precipitation: Greater than 98 in (250 cm).

(C) Substrate: Very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.

(D) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(E) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(F) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

(ii) In units Hawaii 49–*Cyrtandra nanawaleensis*-e and Hawaii 50–*Cyrtandra nanawaleensis*-f, the physical and biological features of critical habitat in wet forest ecosystem are those provided above in paragraphs (i)(A) through (F) of this entry, and in the mesic forest ecosystem and mesic grassland and shrubland ecosystem are:

(A) Elevation: Less than 6,600 ft (2,000 m) in mesic forest ecosystem, and 100 to 7,500 ft (30 to 2,300 m) in mesic grassland and shrubland ecosystem.

(B) Annual precipitation: 39 to 150 in (100 to 380 cm) in mesic forest ecosystem, and 39 to 98 in (100 to 250 cm) in mesic grassland and shrubland ecosystem.

(C) Substrate: Rocky, shallow, organic muck soils; rocky talus soils; shallow soils over weathered rock; deep soils over soft weathered rock; and gravelly alluvium in mesic forest ecosystem; and shallow soils that frequently dry with rocky outcrops in mesic grassland and shrubland ecosystem.

(D) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Charpentiera, Chrysodracon, Metrosideros, Myrsine, Nestegis, Pisonia, Santalum* in mesic forest ecosystem; and *Coprosma, Metrosideros, Wilkesia* in mesic grassland and shrubland ecosystem.

(E) Subcanopy contains one or more of the following native plant genera: *Coprosma, Freycinetia, Leptecophylla, Myoporum, Pipturus, Rubus, Sadleria, Sophora* in mesic forest ecosystem; and *Dodonaea, Dubautia, Leptecophylla, Osteomeles, Sadleria, Vaccinium* in mesic grassland and shrubland ecosystem.

(F) Understory contains one or more of the following native plant genera: *Ctenitis, Doodia, Dryopteris, Pelea, Sadleria* in mesic forest ecosystem; and *Bidens, Carex, Deschampsia, Dicranopteris, Dryopteris, Eragrostis,*

Euphorbia, Lipochaeta in mesic grassland and shrubland ecosystem.

* * * * *

Family Gesneriaceae: Cyrtandra wagneri (HAIWALE)

Hawaii 3–*Cyrtandra wagneri*-a, Hawaii 23–*Cyrtandra wagneri*-b, Hawaii 24–*Cyrtandra wagneri*-c-Section 8, Hawaii 24–*Cyrtandra wagneri*-d-Section 9, Hawaii 28–*Cyrtandra wagneri*-e, Hawaii 29–*Cyrtandra wagneri*-f, Hawaii 30–*Cyrtandra wagneri*-g, Hawaii 42–*Cyrtandra wagneri*-h, Hawaii 43–*Cyrtandra wagneri*-i, Hawaii 44–*Cyrtandra wagneri*-j, Hawaii 45–*Cyrtandra wagneri*-k, Hawaii 46–*Cyrtandra wagneri*-l, Hawaii 51–*Cyrtandra wagneri*-m, and Hawaii 52–*Cyrtandra wagneri*-n, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Cyrtandra wagneri* on Hawaii Island. In units Hawaii 3–*Cyrtandra wagneri*-a, Hawaii 23–*Cyrtandra wagneri*-b, Hawaii 24–*Cyrtandra wagneri*-c-Section 8, Hawaii 24–*Cyrtandra wagneri*-d-Section 9, Hawaii 28–*Cyrtandra wagneri*-e, Hawaii 29–*Cyrtandra wagneri*-f, Hawaii 30–*Cyrtandra wagneri*-g, Hawaii 42–*Cyrtandra wagneri*-h, Hawaii 43–*Cyrtandra wagneri*-i, Hawaii 44–*Cyrtandra wagneri*-j, Hawaii 45–*Cyrtandra wagneri*-k, Hawaii 46–*Cyrtandra wagneri*-l, Hawaii 51–*Cyrtandra wagneri*-m, and Hawaii 52–*Cyrtandra wagneri*-n, the physical and biological features of critical habitat in wet forest ecosystem are:

(i) Elevation: Less than 7,300 ft (2,225 m).

(ii) Annual precipitation: Greater than 98 in (250 cm).

(iii) Substrate: Very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.

(iv) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(v) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(vi) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

* * * * *

Family Lamiaceae: Phyllostegia floribunda (no common name)

Hawaii 3–*Phyllostegia floribunda*-a, Hawaii 8–*Phyllostegia floribund*a-b, Hawaii 9–*Phyllostegia floribunda*-c, Hawaii 15–*Phyllostegia floribunda*-d-Section 4, Hawaii 15–*Phyllostegia floribunda*-e-Section 5, Hawaii 16–*Phyllostegia floribunda*-f, Hawaii 23–*Phyllostegia floribunda*-g, Hawaii 28–*Phyllostegia floribunda*-h, Hawaii 29–*Phyllostegia floribunda*-i, Hawaii 30–*Phyllostegia floribunda*-j, Hawaii 37–*Phyllostegia floribunda*-k, Hawaii 38–*Phyllostegia floribunda*-l, Hawaii 39–*Phyllostegia floribunda*-m, Hawaii 40–*Phyllostegia floribunda*-n, Hawaii 41–*Phyllostegia floribunda*-o, Hawaii 42–*Phyllostegia floribunda*-p, Hawaii 45–*Phyllostegia floribunda*-q, Hawaii 46–*Phyllostegia floribunda*-r, Hawaii 51–*Phyllostegia floribunda*-s, Hawaii 52–*Phyllostegia floribunda*-t, and Hawaii 54–*Phyllostegia floribunda*-u, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Phyllostegia floribunda* on Hawaii Island.

(i) In units Hawaii 3–*Phyllostegia floribunda*-a, Hawaii 15–*Phyllostegia floribunda*-d-Section 4, Hawaii 15–*Phyllostegia floribunda*-e-Section 5, Hawaii 16–*Phyllostegia floribunda*-f, Hawaii 29–*Phyllostegia floribunda*-i, Hawaii 30–*Phyllostegia floribunda*-j, Hawaii 37–*Phyllostegia floribunda*-k, Hawaii 38–*Phyllostegia floribunda*-l, Hawaii 39–*Phyllostegia floribunda*-m, Hawaii 40–*Phyllostegia floribunda*-n, Hawaii 41–*Phyllostegia floribunda*-o, Hawaii 51–*Phyllostegia floribunda*-s, and Hawaii 52–*Phyllostegia floribunda*-t, the physical and biological features of critical habitat in wet forest ecosystem are:

(A) Elevation: Less than 7,300 ft (2,225 m).

(B) Annual precipitation: Greater than 98 in (250 cm).

(C) Substrate: Very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.

(D) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(E) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(F) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

(ii) In units Hawaii 8–*Phyllostegia floribund*a-b, Hawaii 9–*Phyllostegia floribunda*-c, Hawaii 23–*Phyllostegia floribunda*-g, Hawaii 28–*Phyllostegia floribunda*-h, Hawaii 45–*Phyllostegia floribunda*-q, Hawaii 46–*Phyllostegia floribunda*-r, and Hawaii 54–*Phyllostegia floribunda*-u, the physical and biological features of critical habitat in wet forest ecosystem are those provided above in paragraphs (i)(A) through (F) of this entry, and in wet grassland and shrubland ecosystem are:

(A) Elevation: 660 to 2,950 ft (200 to 900 m).

(B) Annual precipitation: 98 to 197 in (250 to 500 cm).

(C) Substrate: Older, weathered soils to younger, rocky substrates.

(D) Canopy contains one or more of the following native plant genera: *Ilex, Kadua, Melicope, Metrosideros, Myrsine.*

(E) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Dubautia, Freycinetia, Hydrangea, Lobelia, Pipturus, Touchardia, Urera, Vaccinium.*

(F) Understory contains one or more of the following native plant genera: *Carex, Cladium, Deschampsia, Dicranopteris, Eragrostis, Peperomia, Phyllostegia, Scaevola.*

(iii) In unit Hawaii 42–*Phyllostegia floribunda*-p, the physical and biological features of critical habitat in wet forest ecosystem are those provided above in paragraphs (i)(A) through (F) of this entry, and in mesic forest ecosystem are:

(A) Elevation of less than 6,600 ft (2,000 m).

(B) Annual precipitation of 39 to 150 in (100 to 380 cm).

(C) Substrate of rocky, shallow, organic muck soils; rocky talus soils; shallow soils over weathered rock; deep soils over soft weathered rock; or gravelly alluvium.

(D) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Charpentiera, Chrysodracon, Metrosideros, Myrsine, Nestegis, Pisonia, Santalum.*

(E) Subcanopy contains one or more of the following native plant genera: *Coprosma, Freycinetia, Leptecophylla, Myoporum, Pipturus, Rubus, Sadleria, Sophora.*

(F) Understory contains one or more of the following native plant genera: *Ctenitis, Doodia, Dryopteris, Pelea, Sadleria.*

* * * * *

Family Lamiaceae: Stenogyne cranwelliae (no common name)

Hawaii 3–*Stenogyne cranwelliae*-a, Hawaii 8–*Stenogyne cranwelliae*-b, Hawaii 9–*Stenogyne cranwelliae*-c, Hawaii 15–*Stenogyne cranwelliae*-d-Section 4, Hawaii 15–*Stenogyne cranwelliae*-e-Section 5, Hawaii 16–*Stenogyne cranwelliae*-f, Hawaii 24–*Stenogyne cranwelliae*-g-Section 8,

Hawaii 24–*Stenogyne cranwelliae*-h-Section 9, Hawaii 29–*Stenogyne cranwelliae*-i, Hawaii 30–*Stenogyne cranwelliae*-j, Hawaii 37–*Stenogyne cranwelliae*-k, Hawaii 38–*Stenogyne cranwelliae*-l, Hawaii 39–*Stenogyne cranwelliae*-m, Hawaii 40–*Stenogyne cranwelliae*-n, Hawaii 41–*Stenogyne cranwelliae*-o, Hawaii 42–*Stenogyne cranwelliae*-p, Hawaii 43–*Stenogyne cranwelliae*-q, Hawaii 44–*Stenogyne cranwelliae*-r, Hawaii 51–*Stenogyne cranwelliae*-s, Hawaii 52–*Stenogyne cranwelliae*-t, and Hawaii 54–*Stenogyne cranwelliae*-u, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Stenogyne cranwelliae* on Hawaii Island. In units Hawaii 3–*Stenogyne cranwelliae*-a, Hawaii 8–*Stenogyne cranwelliae*-b, Hawaii 9–*Stenogyne cranwelliae*-c, Hawaii 15–*Stenogyne cranwelliae*-d-Section 4, Hawaii 15–*Stenogyne cranwelliae*-e-Section 5, Hawaii 16–*Stenogyne cranwelliae*-f, Hawaii 24–*Stenogyne cranwelliae*-g-Section 8, Hawaii 24–*Stenogyne cranwelliae*-h-Section 9, Hawaii 29–*Stenogyne cranwelliae*-i, Hawaii 30–*Stenogyne cranwelliae*-j, Hawaii 37–*Stenogyne cranwelliae*-k, Hawaii 38–*Stenogyne cranwelliae*-l, Hawaii 39–*Stenogyne cranwelliae*-m, Hawaii 40–*Stenogyne cranwelliae*-n, Hawaii 41–*Stenogyne cranwelliae*-o, Hawaii 42–*Stenogyne cranwelliae*-p, Hawaii 43–*Stenogyne cranwelliae*-q, Hawaii 44–*Stenogyne cranwelliae*-r, Hawaii 51–*Stenogyne cranwelliae*-s, Hawaii 52–*Stenogyne cranwelliae*-t, and Hawaii 54–*Stenogyne cranwelliae*-u, the physical and biological features of critical habitat in wet forest ecosystem are:

(i) Elevation: Less than 7,300 ft (2,225 m).

(ii) Annual precipitation: Greater than 98 in (250 cm).

(iii) Substrate: Very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.

(iv) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(v) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(vi) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

* * * * *

Family Pittosporaceae: Pittosporum hawaiiense (HOAWA, HAAWA)

Hawaii 3–*Pittosporum hawaiiense*-a, Hawaii 8–*Pittosporum hawaiiense*-b, Hawaii 9–*Pittosporum hawaiiense*-c, Hawaii 15–*Pittosporum hawaiiense*-d-Section 4, Hawaii 15–*Pittosporum hawaiiense*-e-Section 5, Hawaii 16–*Pittosporum hawaiiense*-f, Hawaii 23–*Pittosporum hawaiiense*-g, Hawaii 24–*Pittosporum hawaiiense*-h-Section 8, Hawaii 24–*Pittosporum hawaiiense*-i-Section 9, Hawaii 29–*Pittosporum hawaiiense*-j, Hawaii 30–*Pittosporum hawaiiense*-k, Hawaii 37–*Pittosporum hawaiiense*-l, Hawaii 38–*Pittosporum hawaiiense*-m, Hawaii 39–*Pittosporum hawaiiense*-n, Hawaii 40–*Pittosporum hawaiiense*-o, Hawaii 41–*Pittosporum hawaiiense*-p, Hawaii 42–*Pittosporum hawaiiense*-q, Hawaii 43–*Pittosporum hawaiiense*-r, Hawaii 44–*Pittosporum hawaiiense*-s, Hawaii 45–*Pittosporum hawaiiense*-t, Hawaii 51–*Pittosporum hawaiiense*-u, Hawaii 52–*Pittosporum hawaiiense*-v, and Hawaii 54–*Pittosporum hawaiiense*-w, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Pittosporum hawaiiense* on Hawaii Island.

(i) In units Hawaii 3–*Pittosporum hawaiiense*-a, Hawaii 8–*Pittosporum hawaiiense*-b, Hawaii 9–*Pittosporum hawaiiense*-c, Hawaii 15–*Pittosporum hawaiiense*-d-Section 4, Hawaii 15–*Pittosporum hawaiiense*-e-Section 5, Hawaii 16–*Pittosporum hawaiiense*-f, Hawaii 23–*Pittosporum hawaiiense*-g, Hawaii 29–*Pittosporum hawaiiense*-j, Hawaii 30–*Pittosporum hawaiiense*-k, Hawaii 37–*Pittosporum hawaiiense*-l, Hawaii 38–*Pittosporum hawaiiense*-m, Hawaii 39–*Pittosporum hawaiiense*-n, Hawaii 40–*Pittosporum hawaiiense*-o, Hawaii 41–*Pittosporum hawaiiense*-p, Hawaii 45–*Pittosporum hawaiiense*-t, Hawaii 51–*Pittosporum hawaiiense*-u, Hawaii 52–*Pittosporum hawaiiense*-v, and Hawaii 54–*Pittosporum hawaiiense*-w, the physical and biological features of critical habitat in wet forest ecosystem are:

(A) Elevation: Less than 7,300 ft (2,225 m).

(B) Annual precipitation: Greater than 98 in (250 cm).

(C) Substrate: Very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.

(D) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(E) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(F) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

(ii) In units Hawaii 24–*Pittosporum hawaiiense*-h-Section 8, Hawaii 24–*Pittosporum hawaiiense*-i-Section 9, Hawaii 42–*Pittosporum hawaiiense*-q, Hawaii 43–*Pittosporum hawaiiense*-r, and Hawaii 44–*Pittosporum hawaiiense*-s, the physical and biological features of critical habitat in wet forest ecosystem are those provided above in paragraphs (i)(A) through (F) of this entry, and in mesic forest ecosystem are:

(A) Elevation: Less than 6,600 ft (2,000 m).

(B) Annual precipitation: 39 to 150 in (100 to 380 cm).

(C) Substrate: Rocky, shallow, organic muck soils; rocky talus soils; shallow soils over weathered rock; deep soils over soft weathered rock; gravelly alluvium.

(D) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Charpentiera, Chrysodracon, Metrosideros, Myrsine, Nestegis, Pisonia, Santalum.*

(E) Subcanopy contains one or more of the following native plant genera: *Coprosma, Freycinetia, Leptecophylla, Myoporum, Pipturus, Rubus, Sadleria, Sophora.*

(F) Understory contains one or more of the following native plant genera: *Ctenitis, Doodia, Dryopteris, Pelea, Sadleria.*

* * * * *

Family Rutaceae: Melicope remyi (no common name)

Hawaii 3–*Melicope remyi*-a, Hawaii 8–*Melicope remyi*-b, Hawaii 9–*Melicope remyi*-c, Hawaii 52–*Melicope remyi*-d, and Hawaii 54–*Melicope remyi*-e, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Melicope remyi* on Hawaii Island. In units Hawaii 3–*Melicope remyi*-a, Hawaii 8–*Melicope remyi*-b, Hawaii 9–*Melicope remyi*-c, Hawaii 52–*Melicope remyi*-d, and Hawaii 54–*Melicope remyi*-e, the physical and biological features of critical habitat in wet forest ecosystem are:

(i) Elevation: Less than 7,300 ft (2,225 m).

(ii) Annual precipitation: Greater than 98 in (250 cm).

(iii) Substrate: Very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.

(iv) Canopy contains one or more of the following native plant genera:

Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.

(v) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(vi) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

* * * * *

Martha Williams,

Director, U.S. Fish and Wildlife Service.

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Part IV

Environmental Protection Agency

40 CFR Part 423
Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 423

[EPA–HQ–OW–2009–0819; FRL–8794–01–OW]

RIN 2040–AG23

Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule; notification of public hearing.

SUMMARY: The Environmental Protection Agency (EPA or the Agency) is proposing a regulation to revise the technology-based effluent limitations guidelines and standards (ELGs) for the steam electric power generating point source category applicable to flue gas desulfurization (FGD) wastewater, bottom ash (BA) transport water, and combustion residual leachate (CRL) at existing sources. EPA is also soliciting comment on ELGs for legacy wastewater. This proposal is estimated to cost $200 million dollars annually in social costs and reduce pollutant discharges by approximately 584 million pounds per year.

DATES:

Comments: Comments on this proposal must be received on or before May 30, 2023. Comments intended for the associated direct final rule published elsewhere in this issue of the **Federal Register**, *Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category—Initial Notification Date Extension,* must be received on or before April 28, 2023.

Public hearing: EPA will conduct two online public hearings about this proposed rule on April 20, 2023, and April 25, 2023. After a brief presentation by EPA personnel, the Agency will accept oral comments that will be limited to three (3) minutes per commenter. The hearing will be recorded and transcribed, and EPA will consider all the oral comments provided, along with the written public comments submitted via the docket for this rulemaking. To register for the hearing, please visit EPA's website at *www.epa.gov/eg/steam-electric-power-generating-effluent-guidelines-2023-proposed-rule.*

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–HQ–OW–2009–0819 at *www.regulations.gov.* Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from *www.regulations.gov.* EPA may publish any comment received to its public docket. Do not electronically submit any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (*e.g.,* audio, video) must be accompanied by a written comment. The written comment is considered the official comment and should include 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). For additional submission methods, the full EPA public comment policy, information about CBI and multimedia submissions, and general guidance on making effective comments, please visit *www.epa.gov/dockets/commenting-epa-dockets.* All documents in the docket are listed on the *www.regulations.gov* website. Although listed in the index, some information is not publicly available, such as CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy form. Electronically available docket materials are available through *www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: For technical information, contact Richard Benware, Engineering and Analysis Division, telephone: 202–566–1369; email: *benware.richard@epa.gov.* For economic information, contact James Covington, Water Economics Center, telephone: 202–566–1034; email: *covington.james@epa.gov.*

SUPPLEMENTARY INFORMATION:

Preamble Acronyms and Abbreviations. EPA uses multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, EPA defines terms and acronyms used in Appendix A of this preamble.

Supporting Documentation. The proposed rule is supported by a number of documents, including:

- Technical Development Document for Proposed Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category (TDD), Document No. 821R23005. This report summarizes the technical and engineering analyses supporting the proposed rule. The TDD presents EPA's updated analyses supporting the proposed revisions to FGD wastewater, BA transport water, CRL, and legacy wastewater. The TDD includes additional data that has been collected since the publication of the 2015 and 2020 rules, updates to the industry (*e.g.,* retirements, updates to wastewater handling), cost methodologies, pollutant removal estimates, corresponding non-water quality environmental impacts associated with updated FGD and BA methodologies, and calculation of the proposed effluent limitations. In addition to the TDD, the Technical Development Document for the Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category (2015 TDD, Document No. EPA–821–R–15–007) and the Supplemental Technical Development Document for Revisions to the Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category (2020 Supplemental TDD, Document No. EPA–821–R–20–001) provide a more complete summary of EPA's data collection, description of the industry, and underlying analyses supporting the 2015 and 2020 rules.
- Supplemental Environmental Assessment for Proposed Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category (EA), Document No. 821R23004. This report summarizes the potential environmental and human health impacts estimated to result from implementation of the proposed revisions to the 2015 and 2020 rules.
- Benefit and Cost Analysis for Proposed Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category (BCA Report), Document No. 821R23003. This report summarizes the societal benefits and costs estimated to result from implementation of the proposed revisions to the 2015 and 2020 rules.
- Regulatory Impact Analysis for Proposed Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category (RIA), Document No. 821R23002. This report presents a profile of the steam electric power generating industry, a summary of estimated costs and impacts associated with the proposed revisions to the 2015 and 2020 rules, and an assessment of the potential impacts on employment and small businesses.
- Environmental Justice Analysis for Proposed Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating

Point Source Category (EJA), Document No. 821R23001. This report presents a profile of the communities and populations potentially impacted by this proposal, analysis of the distribution of impacts in the baseline and proposed changes, and a summary of inputs from potentially impacted communities that EPA met with prior to the proposal.

- Docket Index for the Proposed Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category. This document provides a list of the additional memoranda, references, and other information EPA relied on for the proposed revisions to the ELGs.

Organization of this Document. The information in this preamble is organized as follows:

I. Executive Summary

A. Purpose of Rule

EPA is proposing new regulations that apply to wastewater discharges from steam electric power plants, particularly coal-fired power plants. These plants are increasingly aging and uncompetitive sources of electric power in many portions of the United States and are subject to several environmental regulations designed to control (and in some cases eliminate) air, water, and land pollution over time. One of these regulations, the Steam Electric Power Generating Effluent Limitations Guidelines—or steam electric ELGs—was promulgated in 2015 (80 FR 67838; November 3, 2015) and revised in 2020 (85 FR 64650; October 13, 2020). The 2015 and 2020 rules apply to the subset of the electric power industry where ''generation of electricity is the predominant source of revenue or principal reason for operation, and whose generation of electricity results primarily from a process utilizing fossil-type fuel (coal, oil, gas), fuel derived from fossil fuel (*e.g.,* petroleum coke, synthesis gas), or nuclear fuel in conjunction with a thermal cycle employing the steam-water system as the thermodynamic medium'' (40 CFR 423.10). The 2015 rule addressed discharges from FGD wastewater, fly ash (FA) transport water, BA transport water, flue gas mercury control (FGMC) wastewater, gasification wastewater, CRL, legacy wastewater, and nonchemical metal cleaning wastes. The 2020 rule modified the 2015 requirements for FGD wastewater and BA transport water for existing sources only. The 2015 limitations for CRL from existing sources and legacy wastewater were vacated by the United States (U.S.) Court of Appeals for the Fifth Circuit in *Southwestern Electric Power Co., et al.* v. *EPA,* 920 F.3d 999 (5th Cir. 2019).

In the years since EPA revised the steam electric ELGs in 2015 and 2020, pilot testing and full-scale use of various, more stringent compliance technologies have continued to expand. This proposal, if finalized, would revise requirements for discharges associated with the two wastestreams addressed in the 2020 rule: BA transport water and FGD wastewater at existing sources. The proposal would also address the 2015 rule CRL requirements that were vacated. Finally, while EPA is proposing technology-based limitations determined by permitting authorities on a site-specific basis using their best professional judgment (BPJ), an option discussed by the Court in *Southwestern Electric Power Co.* v. *EPA.*

B. Summary of Proposed Rule

For existing sources that discharge directly to surface water, with the exception of the subcategories discussed below, the proposed rule would establish the following effluent limitations based on Best Available Technology Economically Achievable (BAT):

- A zero-discharge limitation for all pollutants in FGD wastewater and BA transport water.
- Numeric (non-zero) discharge limitations for mercury and arsenic in CRL.

The proposed rule would eliminate the separate, less stringent BAT requirements for two subcategories: high flow facilities and low utilization electric generating units (LUEGUs). The proposed rule does not seek to change the existing subcategories for oil-fired EGUs and small generating units (50 MW or less) established in the 2015 rule. The proposed rule also does not seek to change the existing subcategory for electric generating units (EGUs) permanently ceasing the combustion of coal by 2028, which was established in the 2020 rule (although the Agency does solicit comment on possible changes to this subcategory). Finally, the proposed rule would create separate requirements for a new subcategory of facilities that have already complied with either the 2015 or 2020 rule's requirements (hereafter referred to as ''early adopters'') where such facilities would retire by 2032. For both the existing and new subcategory referenced immediately above, EPA proposes additional requirements for affected facilities to demonstrate permanent cessation of coal combustion or that permanent retirement will occur.

For the one known high flow facility (TVA Cumberland Fossil Plant) and the two known facilities with LUEGUs (GSP Merrimack LLC and Indiana Municipal Power Agency (IMPA) Whitewater Valley Station), the proposed rule would eliminate these two subcategories for FGD wastewater and BA transport water, subjecting those wastestreams to the otherwise applicable requirements for the rest of the industry. For early adopters retiring by 2032, the rule would retain the 2020 rule requirements for FGD wastewater and BA transport water rather than require the new, more stringent zero-discharge requirements for these wastestreams.

Where BAT limitations in this proposed rule are more stringent than previously established BPT and BAT limitations, EPA is proposing that any new limitations would not apply until a date determined by the permitting authority that is as soon as possible on or after [Final Rule Publication Date + 60 days], but no later than December 31, 2029.

For indirect discharges (*i.e.,* discharges to publicly owned treatment works (POTWs)), the proposed rule would establish pretreatment standards for existing sources that are the same as the BAT limitations.

C. Summary of Costs and Benefits

EPA estimates that the proposed rule will cost $200 million per year in social costs and result in $1,557 million per year in monetized benefits using a three percent discount rate and will cost $216 million per year in social costs and result in $1,290 million per year in monetized benefits using a seven percent discount rate.[1] Not all costs and benefits can be fully quantified and monetized, and in particular EPA anticipates the proposed rule would also generate important unquantified benefits (*e.g.,* improved habitat conditions for plants, invertebrates, fish, amphibians, and the wildlife that prey on aquatic organisms). Furthermore, while some health benefits and willingness to pay for water quality

[1] As discussed in Section XII of this preamble, not all benefits could be fully quantified and monetized at this time.

improvements have been quantified and monetized, those estimates may not fully capture all important water quality-related benefits.

Table I–1 of this preamble summarizes the monetized benefits and social costs for the four regulatory options EPA analyzed at a three percent discount rate. EPA's analysis reflects the Agency's understanding of the actions steam electric power plants are expected to take to meet the limitations and standards in the proposed rule. EPA based its analysis on a modeled baseline that reflects the full implementation of the 2020 rule, the expected effects of announced retirements and fuel conversions, and the impacts of relevant final rules affecting the power sector. Although the baseline does not reflect anticipated impacts on the industry because of the recently passed Inflation Reduction Act (IRA), EPA solicits comment on means by which the Agency could model the impacts of the IRA for the final rule. Because the primary effect of the IRA in the context of this rule would be to increase the number of facilities that permanently cease coal combustion in the baseline, EPA expects that it would proportionally reduce the benefits and costs estimated in this proposal.[2] EPA understands that these modeled results are uncertain and that the actual costs for individual plants could be higher or lower than estimated. The current estimate reflects the best data and analysis currently available. For additional information on costs and benefits, see Sections VIII and XII of this preamble, respectively.

TABLE I–1—TOTAL MONETIZED ANNUALIZED BENEFITS AND COSTS OF FOUR REGULATORY OPTIONS

[Millions of 2021$, three percent discount rate]

Regulatory option	Total social costs	Total monetized benefits [a b]	Total monetized net benefits [a b]
Option 1	$88.4	$696	$608
Option 2	167.0	1,336	1,169
Option 3 (Preferred)	200.3	1,557	1,357
Option 4	207.2	1,670	1,463

[a] EPA estimated the air-related benefits for Option 3 using the Integrated Planning Model (IPM). EPA did not analyze Options 1, 2, and 4 using IPM. Instead, EPA extrapolated estimates for Options 1, 2, and 4 air-related benefits from the estimate for Option 3 in proportion to total social costs.

[b] Includes benefits of changes in CO_2 air emissions monetized using the Interagency Working Group on the Social Cost of Greenhouse Gases (IWG) SC–CO_2 at 3% (average). See Section XII.B.3 of this preamble for benefits monetized using other SC–CO_2 values.

II. Public Participation

Submit your comments, identified by Docket ID No. EPA–HQ–OW–2009–0819, at *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 electronically any information you consider to be CBI or other information whose disclosure is restricted by statute. Multimedia submissions (*e.g.,* audio, video) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. 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). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *www.epa.gov/dockets/commenting-epa-dockets.*

III. General Information

A. Does this action apply to me?

Entities potentially regulated by any final rule following this action include:

Category	Example of regulated entity	North American Industry Classification System (NAICS) Code
Industry	Electric Power Generation Facilities—Electric Power Generation	22111
	Electric Power Generation Facilities—Fossil Fuel Electric Power Generation	221112

This section is not intended to be exhaustive, but rather provides a guide regarding entities likely to be regulated by any final rule following this action. Other types of entities that do not meet the above criteria could also be regulated. To determine whether your facility is regulated by any final rule following this action, carefully examine the applicability criteria listed in 40 CFR 423.10 and the definitions in 40 CFR 423.11. If you still have questions regarding the applicability of any final rule following this action to a particular entity, consult the person listed for technical information in the preceding **FOR FURTHER INFORMATION CONTACT** section.

B. What action is EPA taking?

The Agency is proposing to revise, and is soliciting comment on possible revision to certain BAT effluent limitations guidelines and pretreatment standards for existing sources in the steam electric power generating point source category that apply to FGD wastewater, BA transport water, CRL, and legacy wastewater.

[2] Furthermore, because the cessation of coal combustion would occur in the baseline, EPA expects that the rule would continue to be economically achievable even after accounting for the IRA.

C. What is EPA's authority for taking this action?

EPA is proposing to promulgate this rule under the authority of sections 301, 304, 306, 307, 308, 402, and 501 of the Clean Water Act (CWA), 33 U.S.C. 1311, 1314, 1316, 1317, 1318, 1342, and 1361.

D. What are the monetized incremental costs and benefits of this action?

This proposed action is estimated to cost $200 million per year in social costs and result in $1,557 million in benefits using a three percent discount rate. Using a seven percent discount rate, the estimated costs are $216 million per year and the benefits are $1,290 million.

IV. Background

A. Clean Water Act

Congress passed the Federal Water Pollution Control Act Amendments of 1972, also known as the Clean Water Act (CWA), to ''restore and maintain the chemical, physical, and biological integrity of the Nation's waters.'' 33 U.S.C. 1251(a). The CWA establishes a comprehensive program for protecting our nation's waters. Among its core provisions, the CWA prohibits the discharge of pollutants from a point source to waters of the United States (WOTUS), except as authorized under the CWA. Under section 402 of the CWA, discharges may be authorized through a National Pollutant Discharge Elimination System (NPDES) permit. The CWA also authorizes EPA to establish nationally applicable, technology-based ELGs for discharges from different categories of point sources, such as industrial, commercial, and public sources.

The CWA authorizes EPA to promulgate nationally applicable pretreatment standards that restrict pollutant discharges from facilities that discharge wastewater to WOTUS indirectly through sewers flowing to Publicly Owned Treatment Works (POTWs), as outlined in CWA sections 307(b) and (c), 33 U.S.C. 1317(b) and (c). EPA establishes national pretreatment standards for those pollutants in wastewater from indirect dischargers that may pass through, interfere with, or are otherwise incompatible with POTW operations. Pretreatment standards are designed to ensure that wastewaters from direct and indirect industrial dischargers are subject to similar levels of treatment. *See* CWA section 301(b), 33 U.S.C. 1311(b). In addition, POTWs are required to implement local treatment limits applicable to their industrial indirect dischargers to satisfy any local requirements. *See* 40 CFR 403.5.

Direct dischargers (*i.e.,* those discharging directly to surface waters rather than through POTWs) must comply with effluent limitations in NPDES permits. Discharges that flow through groundwater before reaching surface waters must also comply with effluent limitations in NPDES permits if those discharges are the ''functional equivalent'' of a direct discharge. *County of Maui* v. *Hawaii Wildlife Fund,* 140 S. Ct. 1462 (2020). Indirect dischargers, who discharge through POTWs, must comply with pretreatment standards. Technology-based effluent limitations in NPDES permits are derived from effluent limitations guidelines (CWA sections 301 and 304, 33 U.S.C. 1311 and 1314) and new source performance standards (CWA section 306, 33 U.S.C. 1316) promulgated by EPA, or based on best professional judgment (BPJ) where EPA has not promulgated an applicable effluent guideline or new source performance standard. CWA section 402(a)(1)(B), 33 U.S.C. 1342(a)(1)(B); 40 CFR 125.3(c). Additional limitations based on water quality standards are also required to be included in the permit in certain circumstances. CWA section 301(b)(1)(C), 33 U.S.C. 1311(b)(1)(C); 40 CFR 122.44(d). EPA establishes ELGs by regulation for categories of industrial dischargers and are based on the degree of control that can be achieved using various levels of pollution control technology.

EPA promulgates national ELGs for major industrial categories for three classes of pollutants: (1) conventional pollutants (*i.e.,* total suspended solids (TSS), oil and grease, biochemical oxygen demand (BOD_5), fecal coliform, and pH), as outlined in CWA section 304(a)(4) and 40 CFR 401.16; (2) toxic pollutants (*e.g.,* toxic metals such as arsenic, mercury, selenium, and chromium; toxic organic pollutants such as benzene, benzo-a-pyrene, phenol, and naphthalene), as outlined in section 307(a) of the Act, 40 CFR 401.15 and 40 CFR part 423 appendix A; and (3) nonconventional pollutants, which are those pollutants that are not categorized as conventional or toxic (*e.g.,* ammonia-N, phosphorus, and total dissolved solids (TDS)).

B. Relevant Effluent Guidelines

EPA develops effluent guidelines that are technology-based regulations for a category of dischargers. EPA bases these regulations on the performance of control and treatment technologies. The legislative history of CWA section 304(b), which is the heart of the effluent guidelines program, describes the need to press toward higher levels of control through research and development of new processes, modifications, replacement of obsolete plants and processes, and other improvements in technology, taking into account the cost of controls. Congress has also stated that EPA need not consider water quality impacts on individual water bodies as the guidelines are developed; *see* Statement of Senator Muskie (October 4, 1972), reprinted in Legislative History of the Water Pollution Control Act Amendments of 1972, at 170. (U.S. Senate, Committee on Public Works, Serial No. 93–1, January 1973); *see also Southwestern Elec. Power Co.* v. *EPA,* 920 F.3d at 1005 (''The Administrator must require industry, regardless of a discharge's effect on water quality, to employ defined levels of technology to meet effluent limitations.'') (citations and internal quotations omitted).

There are many technology-based effluent limitations (TBELs) that may apply to a discharger under the CWA: four types of standards applicable to direct dischargers, two types of standards applicable to indirect dischargers, and a default site-specific approach. The TBELs relevant to this rulemaking are described in detail below.

1. Best Practicable Control Technology Currently Available

Traditionally, EPA defines Best Practicable Control Technology (BPT) effluent limitations based on the average of the best performances of facilities within the industry, grouped to reflect various ages, sizes, processes, or other common characteristics. EPA may promulgate BPT effluent limitations for conventional, toxic, and nonconventional pollutants. In specifying BPT, EPA looks at a number of factors. EPA first considers the cost of achieving effluent reductions in relation to the effluent reduction benefits. The agency also considers the age of equipment and facilities, the processes employed, engineering aspects of the control technologies, any required process changes, non-water quality environmental impacts (including energy requirements), and such other factors as the Administrator deems appropriate. *See* CWA section 304(b)(1)(B), 33 U.S.C. 1314(b)(1)(B). If, however, existing performance is uniformly inadequate, EPA may establish limitations based on higher levels of control than what is currently in place in an industrial category, when based on an agency determination that the technology is available in another

category or subcategory and can be practicably applied.

2. Best Available Technology Economically Achievable

BAT represents the second level of stringency for controlling direct discharge of toxic and nonconventional pollutants. Courts have referred to this as the CWA's ''gold standard'' for controlling discharges from existing sources. *Southwestern Elec. Power Co.* v. *EPA,* 920 F.3d at 1003. In general, BAT represents the best available, economically achievable performance of facilities in the industrial subcategory or category. As the statutory phrase intends, EPA considers the technological availability and the economic achievability in determining what level of control represents BAT. CWA section 301(b)(2)(A), 33 U.S.C. 1311(b)(2)(A). Other statutory factors that EPA considers in assessing BAT are the cost of achieving BAT effluent reductions, the age of equipment and facilities involved, the process employed, potential process changes, and non-water quality environmental impacts, including energy requirements, and such other factors as the Administrator deems appropriate. CWA section 304(b)(2)(B), 33 U.S.C. 1314(b)(2)(B). The agency retains considerable discretion in assigning the weight to be accorded these factors. *Weyerhaeuser Co.* v. *Costle,* 590 F.2d 1011, 1045 (D.C. Cir. 1978). EPA usually determines economic achievability on the basis of the effect of the cost of compliance with BAT limitations on overall industry and subcategory financial conditions. BAT reflects the highest performance in the industry and may reflect a higher level of performance than is currently being achieved based on technology transferred from a different subcategory or category, bench scale or pilot plant studies, or foreign plants. *Southwestern Elec. Power Co.* v. *EPA,* 920 F.3d at 1006; *American Paper Inst.* v. *Train,* 543 F.2d 328, 353 (D.C. Cir. 1976); *American Frozen Food Inst.* v. *Train,* 539 F.2d 107, 132 (D.C. Cir. 1976). BAT may be based upon process changes or internal controls, even when these technologies are not common industry practice. *See American Frozen Foods,* 539 F.2d at 132, 140; *Reynolds Metals Co.* v. *EPA,* 760 F.2d 549, 562 (4th Cir. 1985); *California & Hawaiian Sugar Co.* v. *EPA,* 553 F.2d 280, 285–88 (2nd Cir. 1977).

3. New Source Performance Standards

New Source Performance Standards (NSPS) reflect effluent reductions that are achievable based on the Best Available Demonstrated Control Technology (BADCT). Owners of new facilities have the opportunity to install the best and most efficient production processes and wastewater treatment technologies. As a result, NSPS should represent the most stringent controls attainable through the application of the BADCT for all pollutants (that is, conventional, nonconventional, and toxic pollutants). In establishing NSPS, EPA is directed to take into consideration the cost of achieving the effluent reduction and any non-water quality environmental impacts and energy requirements. CWA section 306(b)(1)(B), 33 U.S.C. 1316(b)(1)(B).

4. Pretreatment Standards for Existing Sources

Section 307(b), 33 U.S.C. 1317(b), of the Act calls for EPA to issue pretreatment standards for discharges of pollutants to POTWs. Pretreatment standards for existing sources (PSES) are designed to prevent the discharge of pollutants that pass through, interfere with, or are otherwise incompatible with the operation of POTWs. Categorical pretreatment standards are technology-based and are analogous to BPT and BAT effluent limitations guidelines, and thus the agency typically considers the same factors in promulgating PSES as it considers in promulgating BAT. The General Pretreatment Regulations, which set forth the framework for the implementation of categorical pretreatment standards, are found at 40 CFR part 403. These regulations establish pretreatment standards that apply to all non-domestic dischargers. *See* 52 FR 1586 (January 14, 1987).

5. Pretreatment Standards for New Sources

Section 307(c), 33 U.S.C. 1317(c), of the Act calls for EPA to promulgate Pretreatment Standards for New Sources (PSNS). Such pretreatment standards must prevent the discharge of any pollutant into a POTW that may interfere with, pass through, or may otherwise be incompatible with the POTW. EPA promulgates PSNS based on best available demonstrated control technology (BADCT) for new sources. New indirect dischargers have the opportunity to incorporate into their facilities the best available demonstrated technologies. The agency typically considers the same factors in promulgating PSNS as it considers in promulgating NSPS.

6. Best Professional Judgment

The CWA section 301 and its implementing regulation at 40 CFR 125.3(a) indicate that technology-based treatment requirements under section 301(b) of the CWA represent the minimum level of control that must be imposed in an NPDES permit. Where EPA-promulgated effluent guidelines are not applicable to a non-POTW discharge, or where such EPA-promulgated guidelines have been vacated by a court, such treatment requirements are established on a case-by-case basis using the permitting writer's best professional judgment (BPJ). Case-by-case TBELs are developed pursuant to CWA section 402(a)(1), which authorizes EPA Administrator to issue a permit that will meet either: all applicable requirements developed under the authority of other sections of the CWA (*e.g.,* technology-based treatment standards, water quality standards, ocean discharge criteria) or, before taking the necessary implementing actions related to those requirements, ''such conditions as the Administrator determines are necessary to carry out the provisions of this Act.'' The regulation at 40 CFR 125.3(c)(2) cites this section of the CWA, stating that technology-based treatment requirements may be imposed in a permit ''on a case-by-case basis under section 402(a)(1) of the Act, to the extent that EPA-promulgated effluent limitations are inapplicable.'' Further, section 125.3(c)(3) indicates, ''[w]here promulgated effluent limitations guidelines only apply to certain aspects of the discharger's operation, or to certain pollutants, other aspects or activities are subject to regulation on a case-by-case basis in order to carry out the provisions of the Act.'' The factors considered by the permit writer are the same. *See* 40 CFR 125.3(d)(1)–(3).

C. 2015 Steam Electric Power Generation Point Source Category Rule

1. Final Rule Requirements

On September 30, 2015, EPA promulgated a rule revising the regulations for the Steam Electric Power Generating point source category (40 CFR part 423) (hereinafter the ''2015 rule''). The rule set the first Federal limitations on the levels of toxic metals that can be discharged in the steam electric industry's largest sources of wastewater, based on technology improvements in the steam electric power industry over the preceding three decades. Before the 2015 rule, regulations for the industry were last updated in 1982.

Over the last 30 years, new technologies for generating electric power and the widespread implementation of air pollution controls

have altered existing wastewater streams or created new wastewater streams at many steam electric facilities, particularly coal-fired facilities. Discharges of these wastestreams include arsenic, lead, mercury, selenium, chromium, and cadmium. Once in the environment, many of these toxic pollutants can remain there for years and continue to cause impacts.

The 2015 rule addressed effluent limitations and standards for multiple wastestreams generated by new and existing steam electric facilities: BA transport water, CRL, FGD wastewater, FGMC wastewater, FA transport water, gasification wastewater, and legacy wastewater. The rule required most steam electric facilities to comply with the effluent limitations ''as soon as possible'' after November 1, 2018, and no later than December 31, 2023. NPDES permitting authorities established particular compliance date(s) within that range for each facility (except for indirect dischargers) at the time they reissued the facility's NPDES permit.

The 2015 rule was projected to reduce the amount of metals defined in the CWA as toxic pollutants, nutrients, and other pollutants that steam electric facilities are allowed to discharge by 1.4 billion pounds per year and reduce water withdrawal by 57 billion gallons. At the time, EPA estimated annual compliance costs for the final rule to be $480 million (in 2013 dollars) and estimated benefits associated with the rule to be $451 to $566 million (in 2013 dollars).

2. Vacatur of Limitations Applicable to CRL and Legacy Wastewater

Seven petitions for review of the 2015 rule were filed in various circuit courts by the electric utility industry, environmental groups, and drinking water utilities. These petitions were consolidated in the U.S. Court of Appeals for the Fifth Circuit, *Southwestern Electric Power Co.* v. *EPA,* Case No. 15–60821 (5th Cir.). On March 24, 2017, the Utility Water Act Group submitted to EPA an administrative petition for reconsideration of the 2015 rule. On April 5, 2017, the Small Business Administration (SBA) submitted an administrative petition for reconsideration of the 2015 rule.

On August 11, 2017, the Administrator announced his decision to conduct a rulemaking to potentially revise the new, more stringent BAT effluent limitations and pretreatment standards for existing sources in the 2015 rule that apply to FGD wastewater and BA transport water. The Fifth Circuit subsequently granted EPA's request to sever and hold in abeyance petitioners' claims related to those limitations and standards, and those claims are still in abeyance. With respect to the remaining claims related to limitations applicable to legacy wastewater and CRL, the Fifth Circuit issued a decision on April 12, 2019, vacating those limitations as arbitrary and capricious under the Administrative Procedure Act and unlawful under the CWA, respectively. *Southwestern Elec. Power Co.* v. *EPA,* 920 F.3d 999. In particular, the Court rejected EPA's attempts to set BAT limitations for each wastestream equal to previously promulgated BPT limitations based on surface impoundments. In the case of legacy wastewater, the Court held that EPA's record on surface impoundments did not support BAT limitations based on surface impoundments. *Id.* At 1015. In the case of CRL, the Court held that EPA's setting of BAT limitations equal to BPT limitations was an impermissible conflation of the two standards, which are supposed to be progressively more stringent, and that EPA's rationale was not authorized by the statutory factors for determining BAT. *Id.* At 1026. After the Court's decision, EPA announced its plans to address the vacated limitations in a later action after the 2020 rule.

In September 2017, using notice-and-comment procedures, EPA finalized a rule (''postponement rule'') postponing the earliest compliance dates for the more stringent BAT effluent limitations and PSES for FGD wastewater and BA transport water in the 2015 rule, from November 1, 2018, to November 1, 2020. EPA also withdrew a prior action it had taken to stay parts of the 2015 rule pursuant to Section 705 of the Administrative Procedure Act, 5 U.S.C. 705. The postponement rule received multiple legal challenges, but EPA prevailed, and the courts did not sustain any of them.[3]

D. 2020 Steam Electric Reconsideration Rule and Recent Developments

1. Final Rule Requirements

On August 31, 2020, EPA promulgated the *Steam Electric Reconsideration Rule* (hereinafter the ''2020 rule''). The 2020 rule revised requirements for FGD wastewater and BA transport water applicable to existing sources. Specifically, the 2020 rule made four changes to the 2015 rule. First, the rule changed the technology basis for control of FGD wastewater and BA transport water. For FGD wastewater, the technology basis was changed from chemical precipitation plus high hydraulic residence time biological reduction to chemical precipitation plus low hydraulic residence time biological reduction. This change in the technology basis resulted in less stringent selenium limitations but more stringent mercury and nitrogen limitations. For BA transport water, the technology basis was changed from dry handling or closed-loop systems to high recycle rate systems, allowing for a site-specific purge not to exceed 10 percent of the system volume. This change in technology resulted in less stringent limitations for all pollutants in BA transport water. Second, the 2020 rule revised the technology basis for the voluntary incentives program (VIP) for FGD wastewater from vapor compression evaporation to chemical precipitation plus membrane filtration. This change in the technology basis resulted in less stringent limitations for most pollutants but added new limitations for bromide and nitrogen. Third, the 2020 rule created three new subcategories for high-flow facilities, LUEGUs, and EGUs permanently ceasing coal combustion by 2028. These subcategories were subject to less stringent limitations. Finally, the 2020 rule required most steam electric facilities to comply with the revised effluent limitations ''as soon as possible'' after October 13, 2021, and no later than December 31, 2025.[4] NPDES permitting authorities established the particular compliance date(s) within that range for each facility (except for indirect dischargers) at the time they reissued the facility's NPDES permit.

2. Fourth Circuit Court of Appeals Litigation

Two petitions for review of the 2020 rule were timely filed by environmental group petitioners and consolidated in the U.S. Court of Appeals for the Fourth Circuit on November 19, 2020. *Appalachian Voices, et al.* v. *EPA,* No. 20–2187 (4th Cir.). An industry trade group and certain energy companies moved to intervene in the litigation, which the Court granted on December 3, 2020.

3. Executive Order 13990

On January 20, 2021, President Biden issued Executive Order (E.O.) 13990:

[3] *See Center for Biological Diversity* v. *EPA,* No. 18–cv–00050 (D. Ariz. filed January 20, 2018); *see also Clean Water Action.* v. *EPA,* No. 18–60079 (5th Cir.). On October 29, 2018, the District of Arizona case was dismissed upon EPA's motion to dismiss for lack of jurisdiction, and on August 28, 2019, the Fifth Circuit denied the petition for review of the postponement rule.

[4] The 2015 rule's VIP compliance date was revised to December 31, 2028, in the 2020 rule.

Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (86 FR 7037). E.O. 13990 directed Federal agencies to immediately review and, if necessary, take action to address the promulgation of Federal regulations and other actions during the previous four years that conflict with the national objectives of protecting public health and the environment. A list of regulations to be reviewed, including the 2020 rule, was released in conjunction with this E.O.

4. Announcement of Supplemental Rule and Preliminary Effluent Guidelines Plan 15

On July 26, 2021, EPA announced the new rulemaking to strengthen certain wastewater pollution discharge limitations for coal-fired power plants that use steam to generate electricity. EPA later clarified that, as part of its new rulemaking, it would be reconsidering all aspects of the 2020 rule.[5] EPA undertook an evidence-based, science-based review of the 2020 Steam Electric Reconsideration Rule under E.O. 13990, finding that there are opportunities to strengthen certain wastewater pollution discharge limitations. For example, EPA discussed how treatment systems using membranes have advanced since the 2020 rule's promulgation and continue to rapidly advance as an effective option for treating a wide variety of industrial pollution, including pollution from steam electric power plants. In the announcement, EPA also confirmed that until a new rule is promulgated, the 2015 and 2020 regulations will continue to be implemented and enforced to achieve needed pollutant reductions.

In September 2021, EPA issued *Preliminary Effluent Guidelines Program Plan 15*.[6] This document discussed the annual review of effluent limitations guidelines and pretreatment standards, rulemakings for new and existing industrial point source categories, and any new or existing sources receiving further analyses. Here, EPA not only discussed the wastestreams affected by the 2020 rule (FGD wastewater and BA transport water), but also the wastestreams from the 2015 rule which had limitations vacated and remanded to the Agency (*i.e.,* CRL and legacy wastewater). This was the first time EPA had publicly presented information that the supplemental rulemaking could cover these wastestreams as well. For further discussion of the vacatur and remand of the 2015 limitations applicable to CRL and legacy wastewater, see Section IV.D of this preamble.

E. Other Ongoing Rules Impacting the Steam Electric Sector

1. Coal Combustion Residuals Disposal Rule

On April 17, 2015, EPA promulgated the Disposal of Coal Combustion Residuals from Electric Utilities final rule (2015 CCR rule). This rule finalized national regulations to provide a comprehensive set of requirements for the safe disposal of coal combustion residuals (CCR), commonly referred to as coal ash, from steam electric power plants. The final 2015 CCR rule was the culmination of extensive study on the effects of coal ash on the environment and public health. The rule established technical requirements for CCR landfills and surface impoundments under subtitle D of the Resource Conservation and Recovery Act (RCRA), the nation's primary law for regulating solid waste.

These regulations established requirements for the management and disposal of coal ash, including requirements designed to prevent leaking of contaminants into groundwater, blowing of contaminants into the air as dust, and the catastrophic failure of coal ash surface impoundments. The 2015 CCR rule also set recordkeeping and reporting requirements, as well as requirements for each plant to establish and post specific information to a publicly accessible website. The rule also established requirements to distinguish between the beneficial use of CCR from disposal.

As a result of the D.C. Circuit Court decisions in *Utility Solid Waste Activities Group* v. *EPA,* 901 F.3d 414 (D.C. Cir. 2018), and *Waterkeeper Alliance Inc. et al.* v. *EPA,* No. 18–1289 (D.C. Cir. filed March 13, 2019), the Administrator signed two rules: *A Holistic Approach to Closure Part A: Deadline to Initiate Closure and Enhancing Public Access to Information* (CCR Part A rule) on July 29, 2020, and *A Holistic Approach to Closure Part B: Alternate Liner Demonstration* (CCR Part B rule) on October 15, 2020. EPA finalized five amendments to the 2015 CCR rule which continue to impact the wastewaters covered by this ELG. First, the CCR Part A rule established a new deadline of April 11, 2021, for all unlined surface impoundments, as well as those surface impoundments that failed the location restriction for placement above the uppermost aquifer, to stop receiving waste and begin closure or retrofitting. EPA established this date after evaluating the steps that owners and operators need to take for surface impoundments to stop receiving waste and begin closure, and the timeframes needed for implementation. (This would not affect the ability of plants to install new, composite-lined surface impoundments.) Second, the Part A rule established procedures for plants to obtain approval from EPA for additional time to develop alternative disposal capacity to manage their wastestreams (both coal ash and noncoal ash) before they must stop receiving waste and begin closing their coal ash surface impoundments. Third, the Part A rule changed the classification of compacted-soil-lined and clay-lined surface impoundments from lined to unlined. Fourth, the Part B rule finalized procedures potentially allowing a limited number of facilities to demonstrate to EPA that, based on groundwater data and the design of a particular surface impoundment, the unit ensures there is no reasonable probability of adverse effects to human health and the environment. Should such a submission be approved, these CCR surface impoundments would be allowed to continue to operate.

As explained in the 2015 and 2020 ELG rules, the ELGs and CCR rules may affect the same EGU or activity at a plant. Therefore, when EPA finalized the ELG and CCR rules in 2015, and revisions to both rules in 2020, the Agency coordinated the ELG and CCR rules to minimize the complexity of implementing engineering, financial, and permitting activities. EPA considered the interaction of these two rules during the development of this proposal. EPA's analysis builds in the final requirements of these rules in the baseline accounting for the most recent data provided under the CCR rule reporting and recordkeeping requirements. This is further described in Supplemental TDD, Section 3. For more information on the CCR Part A and Part B rules, including information about their ongoing implementation, visit *www.epa.gov/coalash/coal-ash-rule*.

2. Air Pollution Rules and Implementation

EPA is taking several actions to regulate a variety of conventional, hazardous, and greenhouse gas (GHG) air pollutants, including actions to regulate the same steam electric plants subject to Part 423. Other actions impact steam electric plants indirectly when implemented by states. In light of these

[5] On April 8, 2022, the U.S. Court of Appeals for the Fourth Circuit granted EPA's motion for a long-term abeyance of the litigation challenging the 2020 rule, pending this rulemaking.

[6] Available online at: *www.epa.gov/system/files/documents/2021–09/ow-prelim-elg-plan-15_508.pdf*.

ongoing actions, EPA has worked to consider appropriate flexibilities in this proposed ELG rule to provide certainty to the regulated community while ensuring the statutory objectives of each program are achieved. Furthermore, to the extent that these actions are finalized and already impacting steam electric plant operations, EPA has accounted for these changed operations in its IPM modeling discussed in Section VIII of this preamble.

a. The Revised Cross State Air Pollution Rule (CSAPR) Update and the Proposed Good Neighbor Plan for the 2015 Ozone National Ambient Air Quality Standards (NAAQS)

EPA recently completed a rulemaking to address ''good neighbor'' obligations for the 2008 ozone national ambient air quality standards (NAAQS) and proposed a rulemaking in 2022 with respect to the same statutory obligations for the 2015 ozone NAAQS. These actions implement the Clean Air Act's (CAA's) prohibition on emissions that significantly contribute to nonattainment or interfere with maintenance of the NAAQS in other states.

On April 30, 2021, EPA published the final Revised Cross-State Air Pollution Rule (CSAPR) Update, 86 FR 23054, which resolved 21 states' good neighbor obligations for the 2008 ozone NAAQS, following the remand of the 2016 CSAPR Update (81 FR 74504, October 26, 2016) in *Wisconsin* v. *EPA,* 938 F.3d 308 (D.C. Cir. 2019). Between them, these two rules establish the Group 2 and Group 3 market-based emissions trading programs for 22 states in the eastern United States for emissions of oxides of nitrogen (NO_X) from fossil fuel-fired EGUs during the summer ozone season.

On February 28, 2022, the Administrator signed a proposed rule, Federal Implementation Plan Addressing Regional Ozone Transport for the 2015 Ozone National Ambient Air Quality Standards, 87 FR 20036 (April 6, 2022) (also called the Good Neighbor Plan). This proposed rule includes further ozone-season NO_X pollution reduction requirements for fossil fuel-fired EGUs to address 25 states' good neighbor obligations for the 2015 ozone NAAQS. The proposed rule would establish an enhanced Group 3 market-based emissions trading program with NO_X budgets for EGUs in those 25 states, beginning in 2023. Further information about this proposal is available on EPA's website.[7]

b. Clean Air Act Section 111 Rule

On October 23, 2015, EPA finalized NSPSs for emissions from new, modified, and reconstructed fossil fuel-fired EGUs under CAA section 111(b). Specifically, the 2015 NSPS established separate standards for emissions of CO_2 from newly constructed, modified, and reconstructed fossil fuel-fired electric utility steam generating units (*i.e.,* utility EGUs and integrated gasification combined cycle units) and from newly constructed and reconstructed fossil fuel-fired stationary combustion turbines. The standards set in the 2015 NSPS reflected the degree of emission limitation achievable through application of the best system of emission reduction that EPA determined to have been adequately demonstrated for each type of unit and was codified in 40 CFR part 60, subpart TTTT. EPA is currently reviewing the 2015 NSPS—including new technologies to mitigate GHG emissions from new, modified, and reconstructed stationary combustion turbines—and will, if warranted, propose to revise the NSPSs in an upcoming rulemaking.

On August 3, 2015, under CAA section 111(d), EPA promulgated its first emission guidelines regulating emissions from existing fossil fuel-fired EGUs in the Clean Power Plan (CPP) (40 CFR part 60, subpart UUUU). The CPP was subsequently stayed by the U.S. Supreme Court. On June 19, 2019, EPA promulgated new emission guidelines, known as the Affordable Clean Energy (ACE) Rule (40 CFR part 60, subpart UUUUa), and issued a repeal of the CPP. On January 19, 2021, the U.S. Court of Appeals for the D.C. Circuit vacated the ACE Rule and remanded the rule to EPA for further consideration consistent with its decision. The Supreme Court then overturned portions of the D.C. Circuit Court's decision in *West Virginia* v. *EPA,* No. 20–1530, in June 2022. EPA is now considering the implications of the Supreme Court's decision and is undertaking a new rulemaking to establish new emission guidelines under CAA section 111(d) to limit emissions from existing fossil fuel-fired EGUs.

c. Mercury and Air Toxics Standards Rule

After considering costs, EPA recently proposed to reaffirm the determination that it is appropriate and necessary to regulate hazardous air pollutants (HAPs), including mercury, from coal- and oil-fired steam generating power plants. These regulations are known as the Mercury and Air Toxics Standards (MATS) for power plants. The proposed MATS action would revoke a 2020 finding that it is not appropriate and necessary to regulate coal- and oil-fired power plants under CAA section 112, but which did not disturb the underlying MATS regulations. The MATS proposal would ensure that coal- and oil-fired power plants continue to control emissions of toxic air pollution, including mercury.

d. National Ambient Air Quality Standards Rules for Particulate Matter

EPA is currently reconsidering a December 7, 2020, decision to retain the primary (health-based) and secondary (welfare-based) NAAQS for particulate matter (PM).[8] EPA is reconsidering the December 2020 decision because available scientific evidence and technical information indicate that the current standards may not be adequate to protect public health and welfare, as required by the CAA.

V. Steam Electric Power Generating Industry Description

A. General Description of Industry

EPA provided a general description of the steam electric power generating industry in the 2013 proposed rule, the 2015 final rule, the 2019 proposed rule, and the 2020 final rule, and has continued to collect information and update that industry profile. The previous descriptions reflected the known information about the universe of steam electric power plants and incorporated final environmental regulations applicable at that time. For this proposal, as described in the Supplemental TDD, Section 3, EPA has revised its description of the steam electric power generating industry (and its supporting analyses) to incorporate major changes such as additional retirements, fuel conversions, ash handling conversions, wastewater treatment updates, and updated information on capacity utilization.[9] The analyses supporting the proposed rule use an updated baseline that incorporates these changes in the industry. The analyses then compare the effect of the proposed rule's requirements for FGD wastewater, BA transport water, CRL, and legacy wastewater to the effect on the industry (as it exists today) of the 2015 and 2020 rules' limitations for FGD wastewater,

[7] *See www.epa.gov/csapr/good-neighbor-plan-2015-ozone-naaqs.*

[8] *See www.epa.gov/newsreleases/epa-reexamine-health-standards-harmful-soot-previous-administration-left-unchanged.*

[9] The data presented in the general description continue to reflect some conditions existing in 2009, as the 2010 steam electric industry survey remains EPA's best available source of information for characterizing operations across the industry.

BA transport water, CRL, and legacy wastewater.

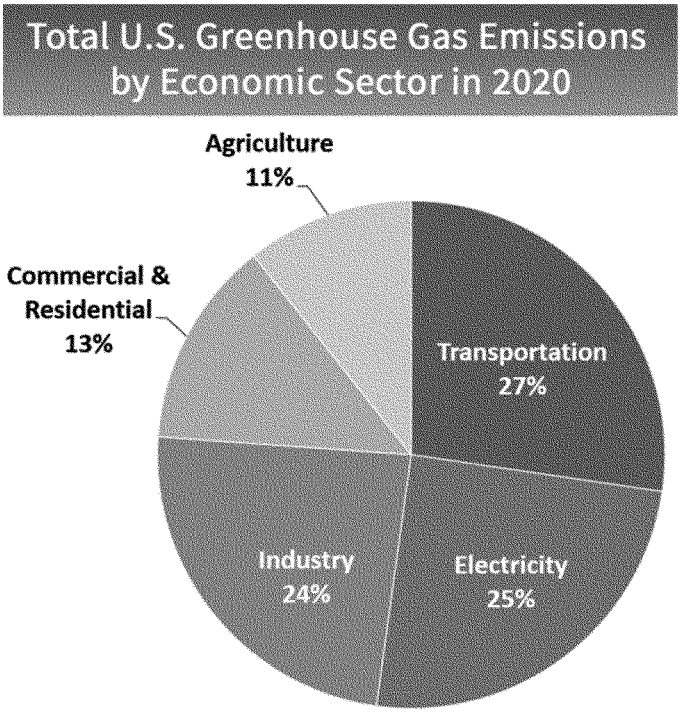
As described in the Regulatory Impact Analysis, of the 871 steam electric power plants in the country identified by EPA, only those coal-fired power plants that discharge FGD wastewater, BA transport water, CRL, and/or legacy wastewater may incur compliance costs under this proposal. EPA estimates that 69 to 93 such plants may incur compliance costs under the regulatory options in this proposal. For further information about plant retirements, fuel conversions, ash handling conversions, wastewater treatment updates, and updated information on capacity utilization, see *Changes to Industry Profile for Coal-Fired Generating Units for the Steam Electric Effluent Guidelines Proposed Rule* (DCN SE10241).

B. Greenhouse Gas Reduction Targets, the Inflation Reduction Act, and Potential Impacts on Current Market Conditions

While this proposal was motivated by the CWA and by the need to address water pollution, EPA acknowledges that there are also large changes happening in the industry, in part due to a series of actions targeted toward GHG reductions. First, in April 22, 2021, President Biden announced new 2030 GHG reduction targets for the United States.[10] As part of reaching net zero emissions by 2050, the nationally determined contribution submitted to the United Nations Framework Convention on Climate Change includes a 50–52 percent reduction from 2005 levels by 2030. These reduction targets were developed by the National Climate Task Force and support the United States' commitments under the Paris Agreement.

The steam electric sector is one of the largest contributors of U.S. GHG emissions. Figure IV–1 of this preamble below is reproduced from EPA's website.[11] As shown in the figure, EPA estimates that 25 percent of 2020 GHG emissions in the United States came from electricity generation (largely comprised of emissions from steam electric power plants). Although this fraction continues to decline, several models looking at plausible pathways to meet the announced 2030 goal have estimated that substantial additional GHG reductions from coal combustion will be necessary.[12]

Figure IV-1. 2020 Greenhouse Gas Emissions[13,14]



The GHG reduction targets did not directly impose incentives on steam electric plants; however, on August 16, 2022, President Biden signed the IRA into law. The IRA includes many provisions that will affect the steam electric power generating industry. The IRA provides tax credits, financing programs, and other incentives that will accelerate the transition to forms of energy that produce little or no GHG emissions. An analysis conducted by the Department of Energy (DOE) shows that tax incentives included in the IRA will increase the growth of wind and

[10] *See www.whitehouse.gov/ceq/news-updates/2021/12/13/icymi-president-biden-signs-executive-order-catalyzing-americas-clean-energy-economy-through-federal-sustainability/.*

[11] *See www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions.*

[12] Bistline, J., Abhyankar, N., Blanford, G., Clarke, L., Fakhry, R., Mcjeon, H., Reilly, J., Roney, C., Wilson, T., Yuan, M., and Zhao, A. 2022. *Actions for reducing US emissions at least 50% by 2030. Policies must help decarbonize power and transport sectors. Science.* Vol 376, Issue 6596. Pg 922–924. May 26. Available online at: *www.science.org/doi/10.1126/science.abn0661.*

[13] Total emissions in 2020 = 5,981 million metric tons of CO_2 equivalent. Percentages may not add up to 100 percent due to independent rounding.

[14] Land use, land-use change, and forestry in the United States is a net sink and removes approximately 13 percent of these GHG emissions. This net sink is not shown in the above diagram. All emission estimates are from the *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2020.* Available online at: *www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks.*

solar electricity generation while supporting the maintenance of the country's existing nuclear power fleet.[15] Thus, the DOE analysis suggests the IRA may reduce the number of coal burning power plants in operation.

Based on these DOE analytic results EPA would expect reduced baseline emissions of air and water pollution, lower total incremental costs, and lower total incremental benefits of this rule. Lower costs and benefits would alter the regulatory impact analysis under E.O. 12866 and E.O. 13563. While the impacts of the IRA are not reflected in the detailed analyses included with this proposal (because the analyses were completed prior to the passage of the IRA), EPA is evaluating how the IRA can be incorporated into the baseline of the final rule (including IPM) and will update the analyses to reflect the IRA for any final rule. EPA solicits comment on the incorporation of the IRA into its analyses, including any specific recommendations or data supporting a particular approach.

EPA does not expect the IRA to affect the current findings of economic achievability of the rule. To evaluate economic achievability, EPA considers the costs of the technologies that form the basis for BAT and uses IPM to assess changes in the power sector, including closures. As discussed in Section VIII of this preamble, EPA expects the costs of the technologies discussed here to result in a single coal-fired power plant closure; thus, the rule would be economically achievable.

C. Control and Treatment Technologies

In general, control and treatment technologies for some wastestreams have continued to advance since the 2015 and 2020 rules. Often, these advancements provide plants with additional approaches for complying with any effluent limitations. In some cases, these advancements have also decreased the associated costs of compliance. For this proposal, EPA incorporated updated information and evaluated several technologies available to control and treat FGD wastewater, BA transport water, CRL, and legacy wastewater generated by the steam electric industry. See Section VIII of this preamble for details on updated cost information.

1. FGD Wastewater

FGD scrubber systems are used to remove sulfur dioxide from flue gas so it is not emitted into the air. Dry FGD systems use water in their operation but generally do not discharge wastewater as it is evaporated during operation, while wet FGD systems produce a wastewater stream.

Steam electric power plants discharging FGD wastewater currently employ a variety of wastewater treatment technologies and operating/management practices to reduce the pollutants associated with FGD wastewater discharges. EPA identified the following types of treatment and handling practices for FGD wastewater as part of the 2015 and 2020 rules:

- *Chemical precipitation.* Chemicals are added as part of the treatment system to help remove suspended solids and dissolved solids, particularly metals. The precipitated solids are then removed from solution by coagulation/flocculation followed by clarification and/or filtration. The 2015 and 2020 rules focused on a specific design that employs hydroxide precipitation, sulfide precipitation (organosulfide), and iron coprecipitation to remove suspended solids and to convert soluble metal ions to insoluble metal hydroxides or sulfides. Chemical precipitation was part of the BAT technology basis for the effluent limitations in the 2015 and 2020 rule.
- *High hydraulic residence time biological reduction (HRTR).* EPA identified three types of biological treatment systems used to treat FGD wastewater: anoxic/anaerobic fixed-film bioreactors (which target removals of nitrogen compounds and selenium), anoxic/anaerobic suspended growth systems (which target removals of selenium and other metals), and aerobic/anaerobic sequencing batch reactors (which target removals of organics and nutrients). An anoxic/anaerobic fixed-film bioreactor designed to remove selenium and nitrogen compounds using high hydraulic residence times of approximately 10 to 16 hours was the BAT technology basis for the effluent limitations in the 2015 rule.
- *Low hydraulic residence time biological reduction (LRTR).* A biological treatment system that targets removal of selenium and nitrate/nitrite using fixed-film bioreactors in smaller, more compact reaction vessels. This system differs from the HRTR biological treatment system evaluated in the 2015 rule, in that the LRTR system is designed to operate with a shorter residence time (approximately one to four hours, compared to a residence time of 10 to 16 hours for HRTR), while still achieving significant removal of selenium and nitrate/nitrite. LRTR was the BAT technology basis for the effluent limitations in the 2020 rule.
- *Membrane filtration.* A membrane filtration system (*e.g.,* microfiltration, ultrafiltration, nanofiltration, forward osmosis (FO), electrodialysis reversal (EDR), or reverse osmosis (RO)) designed specifically for high TDS and TSS wastestreams. These systems are designed to minimize fouling and scaling associated with industrial wastewater. These systems typically use pretreatment for potential scaling agents (*e.g.,* calcium, magnesium, sulfates) combined with one or more type of membrane technology to remove a broad array of particulate and dissolved pollutants from FGD wastewater. The membrane filtration units may also employ advanced techniques, such as vibration or creation of vortexes to mitigate fouling or scaling of the membrane surfaces. Membrane filtration can achieve zero discharge by recirculating permeate from the RO system back into plant operations.
- *Spray evaporation.* Spray evaporation technologies, which include spray dry evaporators (SDEs) and other similar proprietary variations, evaporate water by spraying fine misted wastewater into hot gasses. The hot gasses allow the water to evaporate before contacting the walls of an evaporation vessel, treating wastewater across a range of water quality characteristics such as TDS, TSS, or scale forming potential. Spray evaporation technologies use a less complex treatment configuration than brine concentrator and crystallizer systems (*see* the description of thermal evaporation systems) to evaporate water by a heat source, such as a slipstream of hot flue gas or an external natural gas burner. Spray evaporation technologies can be used in combination with other volume reduction technologies, such as membranes, to maximize the efficiency of each process. Concentrate from the RO system can then be processed through the spray evaporation technology to achieve zero discharge by recirculating permeate from the RO system back into plant operations.
- *Thermal evaporation.* Thermal evaporation systems that use a falling-film evaporator (or brine concentrator), following a softening pretreatment step, to produce a concentrated wastewater stream and a distillate stream to reduce wastewater volume by 80 to 90 percent and reduce the discharge of pollutants. The concentrated wastewater is usually further processed in a crystallizer that produces a solid residue for landfill disposal and additional distillate that can be reused within the plant or discharged. These systems are designed

[15] *See www.energy.gov/sites/default/files/2022-08/8.18%20InflationReductionAct_Factsheet_Final.pdf.*

to remove the broad spectrum of pollutants present in FGD wastewater to very low effluent concentrations.

• Some plants operate their wet FGD systems using approaches that eliminate the discharge of FGD wastewater. These plants use a variety of operating and management practices to achieve this, including the following:

—*Complete recycle.* The FGD Wastestream is allowed to recirculate. Particulates (*e.g.,* precipitates and other solids) are removed and landfilled. Water is supplemented when needed to replace that evaporated or removed with landfilled solids. This process does not produce a saleable product (*e.g.,* wallboard grade gypsum) but it does not need a wastewater purge stream to maintain low levels of chloride.

—*Evaporation impoundments.* Some plants located in warm, dry climates have been able to use surface impoundments as holding basins where the FGD wastewater is retained until it evaporates. The evaporation rate from the impoundments at these plants is greater than the flow rate of the FGD wastewater and amount of precipitation entering the impoundments; therefore, there is no discharge to surface water.[16] These impoundments must be large enough to accommodate extreme precipitation events to prevent overtopping and runoff.

—*FA conditioning*. Many plants that operate dry FA handling systems will utilize the water from their FGD system in the FA handling system to suppress dust or improve handling and/or compaction characteristics in an on-site landfill.

—*Combination of wet and dry FGD systems*. The dry FGD process involves atomizing and injecting wet lime slurry, which ranges from approximately 18 to 25 percent solids, into a spray dryer. The water contained in the slurry evaporates from the heat of the flue gas within the system, leaving a dry residue that is removed from the flue gas by a fabric filter (*i.e.,* baghouse) or electrostatic precipitator.

—*Underground injection*. These systems dispose of wastes by injecting them into a permitted underground injection well as an alternative to discharging wastewater to surface waters.

EPA also collected new information on other FGD wastewater treatment technologies, including direct contact thermal evaporators and ion exchange. These treatment technologies have been evaluated, in full- or pilot-scale, or are being developed to treat FGD wastewater. See Section 4.1 of the Supplemental TDD for more information on these technologies.

2. BA Transport Water

BA consists of heavier ash particles that are not entrained in the flue gas and fall to the bottom of the furnace. In most furnaces, the hot BA is quenched in a water-filled hopper.[17] Some plants use water to transport (sluice) the BA from the hopper to an impoundment or dewatering bins. The water used to transport the BA to the impoundment or dewatering bins is usually discharged to surface water as overflow from the systems after the BA has settled to the bottom. The industry also uses the following BA handling systems that generate BA transport water:

• *Remote mechanical drag system (MDS).* These systems transport BA to a remote MDS using the same processes as wet-sluicing systems. A drag chain conveyor pulls the BA out of the water bath on an incline to dewater the BA. The system can either be operated as a closed-loop system (technology basis for the 2015 rule) or a high recycle rate system (technology basis for the 2020 rule).[18]

• *Mobile MDS.* This technology is a smaller, mobile version of a remote MDS with an additional clarification system. It is not intended to be a permanent installation, allowing for the reduction of capital costs as facility needs allow. Once in place, the system works like a remote MDS—the incoming water is clarified and primary separation occurs. The clarified water is taken from the mechanical drag system to a mobile clarifier and polished to a level suitable for recirculation. The mobile clarifier thickens the collected solids, which are then sent back to the mechanical drag system portion and mixed with coarse BA. This mixture is sent up an incline, dewatered, and disposed of.

• *Dense slurry system.* These systems use a dry vacuum or pressure system to convey the BA to a silo (as described below for the ''Dry Vacuum or Pressure System''), but instead of using trucks to transport the BA to a landfill, the plant mixes the BA with a lower percentage of water compared to a wet-sluicing system and pumps the mixture to the landfill.

As part of the 2020 rule and this proposed rule, EPA identified the following BA handling systems that do not, by definition or practice, generate BA transport water.

• *MDS.* These systems are located directly underneath the boiler. The BA is collected in a water quench bath. A drag chain conveyor pulls the BA out of the water bath along an incline to dewater the BA.

• *Dry mechanical conveyor.* These systems are located directly underneath the boiler. The system uses ambient air to cool the BA in the boiler and then transports the ash out from under the boiler using a conveyor. There is no water used in this process.

• *Dry vacuum or pressure system.* These systems transport BA from the boiler to a dry hopper without using any water. Air is percolated through the ash to cool it and combust unburned carbon. Cooled ash then drops to a crusher and is conveyed via vacuum or pressure to an intermediate storage destination.

• *Vibratory belt system.* These systems deposit BA on a vibratory conveyor trough, where the ash is air-cooled and ultimately moved through the conveyor deck to an intermediate storage destination without using any water.

• *Submerged grind conveyor.* These systems are located directly underneath the boiler and are designed to reuse slag tanks, ash gates, clinker grinders, and transfer enclosures from the existing wet sluicing systems. The system collects BA from the discharge of each clinker grinder. A series of submerged drag chain conveyors transport and dewater the BA.

See Section 4.2 of the Supplemental TDD for more information on these technologies.

3. CRL

In promulgating the 2015 rule, EPA determined that combustion residual leachate from landfills and impoundments includes similar types of constituents as FGD wastewater, albeit at potentially lower concentrations and smaller volumes. Based on this characterization of the wastewater and knowledge of treatment technologies, EPA determined that certain treatment technologies identified for FGD wastewater could also be used to treat leachate from landfills and impoundments containing combustion residuals. These technologies, described in Section V.C.1, of this preamble include chemical precipitation,

[16] Such impoundments must be lined based on the requirements in the CCR rule. This would significantly reduce the potential of a discharge to groundwater.

[17] Consistent with the 2015 and 2020 rule, boiler slag is considered BA.

[18] In some cases, additional treatment may be necessary to maintain a closed-loop system. This additional treatment could include polymer addition to enhance removal of suspended solids or membrane filtration of a slip stream to remove dissolved solids.

biological treatment (including LRTR), membrane filtration, spray evaporation, or other thermal treatment options. EPA also identified other management and reuse strategies from responses to the 2010 *Questionnaire for the Steam Electric Power Generating Effluent Guidelines,* or steam electric survey, that included using CRL from either an impoundment or landfill for moisture conditioning FA, dust control, or truck wash. EPA also identified plants that collect CRL from impoundments and recycle it directly back to the impoundment.

4. Legacy Wastewater

Legacy wastewater can be comprised of FGD wastewater, BA transport water, FA transport water, CRL, gasification wastewater and/or FGMC wastewater generated before the ''as soon as possible'' date that more stringent effluent limitations from the 2015 or 2020 rules would apply. Discharges of legacy wastewater may occur through an intermediary source (*e.g.,* a tank or surface impoundment) or directly into a surface waterbody (*see* Section VII.B.4 of this preamble). The record indicates that the following technologies can be applied to treat this type of legacy wastewater: chemical precipitation, biological treatment (including LRTR), membrane filtration, spray evaporation, or other thermal treatment options. These technologies are described in Section V.C.1 of this preamble. Another option, which may be used in combination with other systems such as chemical and physical treatment, is zero valent iron (ZVI).

- ZVI. This technology can be used to target specific inorganics, including selenium, arsenic, nitrate, and mercury in this type of legacy wastewater. The technology entails mixing influent wastewater with ZVI (iron in its elemental form), which reacts with oxyanions, metal cations, and some organic molecules in wastewater. ZVI causes a reduction reaction of these pollutants, after which the pollutants are immobilized through surface adsorption onto iron oxide coated on the ZVI or generated from oxidation of elemental iron. The coated, or spent, ZVI is separated from the wastewater with a clarifier. The quantity of ZVI required and number of reaction vessels can vary based on the composition and amount of wastewater being treated.

EPA recognizes that the characterization of legacy wastewater differs within the layers of a CCR impoundment as it is dewatered and prepared for closure. Therefore, treatment requirements may change as closure continues. Wastewater characteristics also differ across CCR impoundments due to different types of fuels burned at the plant, duration of pond operation, and ash type. The list of treatment technologies identified for legacy wastewater above are all applicable to all legacy wastewaters; however, treatment may require a combination of those technologies (*e.g.,* chemical precipitation and membrane filtration).

In addition, solids dewatering is necessary to dredge CCR materials from the impoundment. Mobile dewatering systems are typically self-contained units on a trailer, allowing for the entire system to be easily moved on-site and off-site. Legacy wastewater from a holding area (*e.g.,* pit, pond, collection tank) is pumped through a filter press to generate a filter cake and water stream. A shaker screen can be added to the treatment train to remove larger particles prior to the filter press. Furthermore, the filter press can be equipped with automated plate shifters to allow solids to drop from the end of the trailer directly into a loader or truck. The resulting wastestream may be further treated to meet any discharge requirements.

VI. Data Collection Since the 2020 Rule

A. Information From the Electric Utility Industry

1. Data Requests and Responses

In January 2022, EPA requested the following pollution treatment system performance and cost information for coal-fired power plants from three steam electric power companies:

- FGD wastewater installations of the following technologies: thermal technology; membrane filtration technology; paste, solidification, or encapsulation of FGD wastewater brine; electrodialysis; and electrocoagulation.
- Overflow from an MDS, a compact submerged conveyor (CSC), or remote MDS installations, including purge rate and management from remote MDS systems, as well as any pollutant concentration data to characterize the overflow or purge.
- CRL treatment from on-site or off-site testing (full-, pilot-, or laboratory-scale).
- On-site or off-site testing (full-, pilot-, or laboratory-scale) and/or implementation of treatment technologies associated with surface impoundment decanting or dewatering treatment.
- Costs associated with these technologies.

In addition, EPA sent four additional power companies a voluntary request inviting them to provide the same data described above after EPA had met with these companies.

2. Meetings With Individual Utilities

To gather information to support this supplemental proposed rule, EPA met with representatives from four utilities. Two of these utilities reached out to EPA after the announcement of the supplemental rule. EPA contacted the remaining utilities due to their known or potential consideration of membrane filtration. At these meetings, EPA discussed the operation of the utility's coal-fired generating units and the treatment and management of BA transport water, FGD wastewater, legacy wastewater, and CRL since the 2020 rule. EPA learned about updates associated with plant operations and studies that were originally discussed during the 2015 and 2020 rules.

The specific objectives of these meetings were to gather general information about coal-fired power plant operations; pollution prevention and wastewater treatment system operations; ongoing pilot or laboratory scale study information for FGD wastewater treatment; BA system performance, characterization, and quantification of the overflow and purge from remote MDS installations; and treatment technologies and pilot testing associated with CRL and legacy wastewater. EPA used this information to supplement the data collected in support of the 2015 and 2020 rules.

3. Voluntary CRL Sampling

In December 2021, EPA invited eight steam electric power companies to participate in a voluntary program designed to obtain data to supplement the wastewater characterization data set for CRL. EPA requested these data from facilities believed to have constructed new landfills pursuant to the 2015 CCR rule. Six power companies chose to participate in this program.

4. Electric Power Research Institute Voluntary Submission

The Electric Power Research Institute (EPRI) conducts industry-funded studies to evaluate and demonstrate technologies that can potentially remove pollutants from wastestreams or eliminate wastestreams using zero discharge technologies. Following the 2015 rule, EPA reviewed 35 reports published between 2011 and 2018 that EPRI voluntarily provided regarding characteristics of FGD wastewater, FGD wastewater treatment pilot studies, BA transport water characterization, BA handling practices, halogen addition rates, and the effect of halogen additives on FGD wastewater. For this

supplemental proposed rule, EPRI provided an additional 25 reports generated in the intervening years. EPA used information presented in these reports to inform the development of numeric effluent limitations for FGD wastewater and to update methodologies for estimating costs and pollutant removals associated with candidate treatment technologies.

5. Meetings With Trade Associations

In 2021 and 2022, EPA met with the Edison Electric Institute and the American Public Power Association. These trade associations represent investor-owned utilities and community-owned utilities, respectively. They provided information and perspectives on the current status of many utilities transitioning away from coal.

B. Notices of Planned Participation

The 2020 rule required facilities to file a notice of planned participation (NOPP) with their permitting authority no later than October 13, 2021, if the facility wished to participate in the LUEGU subcategory, the permanent cessation of coal combustion subcategory, or in the VIP (*see* 40 CFR 423.19(e), (f), and (h), respectively). While EPA did not require that a copy be provided to the Agency, EPA nevertheless obtained a number of these filings. Some facilities provided EPA a courtesy copy when filing with the relevant permitting authority. The Agency received notice of other filings as part of its standard permit review process when a state permitting authority sent new draft permits or modifications to EPA for review. EPA also asked some states for NOPPs after those states asked EPA questions about the process or initiated discussions about specific plants. Environmental groups who had been tracking NOPPs at specific plants and states also shared with EPA the information they had collected.

EPA is currently aware of NOPPs covering 90 EGUs at 38 plants. Of these, four EGUs (at two plants) have requested participation in the LUEGU subcategory, an additional 12 EGUs (at four plants) have requested participation in the 2020 rule VIP, and the remaining 74 EGUs (at 33 plants) have requested participation in the permanent cessation of coal combustion subcategory.[19] EPA cautions that these counts are not a comprehensive picture of what facilities' plans are for two reasons. First, EPA was unable to obtain information for all plants and states, and thus solicits comment on whether the public is aware of additional NOPPs that are not yet known to the Agency. Second, even where a facility has filed a NOPP, it still retains the flexibility under the transfer provisions of 40 CFR 423.13(o) to transfer between subcategories, or between a subcategory and the 2020 VIP provisions until 2023 or 2025 (depending on the transfer desired). EPA therefore solicits comment on additional information that would inform the Agency's understanding of facilities' plans under the 2020 rule. For further detail, the NOPPs EPA is aware of have been placed in the docket along with a memo summarizing the information and providing record index numbers for locating each facility, entitled *Changes to Industry Profile for Coal-Fired Generating Units for the Steam Electric Effluent Guidelines Proposed Rule* (SE10241).

C. Information From Technology Vendors and Engineering, Procurement, and Construction Firms

EPA gathered data on the availability and effectiveness of FGD wastewater, BA handling, CRL, and pond dewatering operations and wastewater treatment technologies in the industry from technology vendors and Engineering, Procurement, and Construction firms through presentations, conferences, meetings, and email and phone contacts. These collected data informed the development of the technology costs and pollutant removal estimates for FGD wastewater, BA transport water, CRL, and legacy wastewater.

D. Other Data Sources

EPA gathered information on steam electric generating facilities from the Department of Energy's (DOE's) Energy Information Administration (EIA) Forms EIA–860 (Annual Electric Generator Report) and EIA–923 (Power Plant Operations Report). EPA used the 2019 and 2020 data to update the industry profile, including commissioning dates, energy sources, capacity, net generation, operating statuses, planned retirement dates, ownership, and pollution controls at the EGUs.

EPA conducted literature and internet searches to gather information on FGD wastewater treatment technologies, including information on pilot studies, applications in the steam electric power generating industry, and implementation costs and timelines. EPA also used internet searches to identify or confirm reports of planned facility plant and EGU retirements and reports of planned unit conversions to dry or closed-loop recycle ash handling systems. EPA used this information to inform the industry profile and identify process modifications occurring in the industry.

VII. Proposed Regulation

A. Description of the Options

This proposal evaluates four regulatory options and identifies one preferred option (Option 3), as shown in Table VII–1 of this preamble. All options include the same technology basis for CRL (chemical precipitation) and legacy wastewater (best professional judgment) while incrementally increasing controls on FGD wastewater, BA transport water, or both. Each successive option from Option 1 to 4 would achieve a greater reduction in wastewater pollutant discharges. Each subcategorization is described further in Section VII.C of this preamble. In addition to some specific requests for comment included throughout this proposal, EPA solicits comment on all aspects of this proposal, including the information, data, and assumptions EPA relied upon to develop the four regulatory options, as well as the proposed BAT, effluent limitations, and alternate approaches included in this proposal.

1. FGD Wastewater

Under Option 1, EPA proposes to eliminate the BAT and PSES subcategorizations for high FGD flow facilities and LUEGUs. Option 1 would establish the same mercury, arsenic, selenium, and nitrogen limitations applicable to the industrial category based on chemical precipitation, followed by low hydraulic residence time biological treatment and ultrafiltration. Under Options 2 and 3, EPA proposes to eliminate the BAT and PSES subcategorizations for high FGD flow facilities and LUEGUs and further proposes to require zero discharge of FGD wastewater based on chemical precipitation followed by membrane filtration with 100 percent recycle of the permeate. These proposed options would also create a subcategory for early adopters that have already installed compliant biological treatment systems and would retire no later than December 31, 2032. Under Option 4, EPA proposes to establish an industrywide zero-discharge requirement without establishing an early adopter subcategory. Note that for all four options EPA proposes to retain the subcategory for EGUs permanently ceasing coal combustion by 2028.

[19] Plant Scherer filed a permanent cessation of coal combustion NOPP for two EGUs and a 2020 rule VIP NOPP for the remaining two EGUs; thus, the plant count for the three groupings does not equal 38.

2. BA Transport Water

Under Options 1 and 2, EPA proposes to eliminate the BAT and PSES subcategorization for LUEGUs. Options 1 and 2 would establish the same volumetric purge limitation applicable to the industrial category based on high recycle rate systems. Under Option 3, EPA proposes zero discharge based on dry handling or closed-loop systems. This proposed option would also create a subcategory for early adopters that have already installed a compliant high recycle rate system and would retire no later than December 31, 2032. Under Option 4, EPA proposes to establish an industrywide zero-discharge requirement without establishing an early adopter subcategory. For all four options, EPA proposes to retain the subcategory for EGUs permanently ceasing coal combustion by 2028.

3. CRL

Under all four options, EPA proposes to establish BAT limitations and PSES for mercury and arsenic based on chemical precipitation treatment.

4. Legacy Wastewater

Under all four options, EPA proposes not to specify a nationwide technology basis for BAT/PSES applicable to legacy wastewater at this time, but rather proposes that such limitations are to be derived on a site-specific basis by the permitting authorities, using their BPJ. EPA does solicit comment on other options, as discussed below.

TABLE VII–1—MAIN REGULATORY PROPOSED OPTIONS

Wastestream	Subcategory	Technology Basis for the BAT/PSES Regulatory Options			
		1	2	3 (Preferred)	4
FGD wastewater	N/A	Chemical precipitation + biological treatment + ultrafiltration.	Chemical precipitation + membrane filtration.	Chemical precipitation + membrane filtration.	Chemical precipitation + membrane filtration.
	High FGD flow facilities/LUEGUs.	NS	NS	NS	NS.
	EGUs permanently ceasing coal combustion by 2028.	Surface impoundments.	Surface impoundments.	Surface impoundments.	Surface impoundments.
	Early adopters permanently ceasing coal combustion by 2032.	NS	Chemical precipitation + biological treatment + ultrafiltration.	Chemical precipitation + biological treatment + ultrafiltration.	NS.
BA transport water	N/A	High recycle rate systems.	High recycle rate systems.	Dry handling or closed-loop systems.	Dry handling or closed-loop systems.
	LUEGUs	NS	NS	NS	NS.
	EGUs permanently ceasing coal combustion by 2028.	Surface impoundments.	Surface impoundments.	Surface impoundments.	Surface impoundments.
	Early adopters permanently ceasing coal combustion by 2032.	NS	NS	High recycle rate systems.	NS.
CRL	N/A	Chemical precipitation	Chemical precipitation	Chemical precipitation	Chemical precipitation.
Legacy wastewater	N/A	Best professional judgment.	Best professional judgment.	Best professional judgment.	Best professional judgment.

N/A = Not applicable.
NS = Not subcategorized.
Note: The table above does not present existing subcategories included in the 2015 rule or the 2020 VIP for FGD wastewater. EPA is not proposing any changes to the existing 2015 rule subcategorization of oil-fired units, units with a nameplate capacity of 50 MW or less, or the 2020 VIP.

B. Rationale for the Proposed Rule

In light of the criteria and factors specified in CWA sections 301(b)(2)(A) and 304(b)(2)(B) (*see* Section IV of this preamble, above), EPA proposes to establish BAT effluent limitations based on the technologies described in Option 3.[20]

1. FGD Wastewater

EPA is proposing chemical precipitation, followed by membrane filtration, as the technology basis for establishing BAT limitations to control pollutants discharged in FGD wastewater. After considering the factors specified in CWA section 304(b)(2)(B), EPA proposes to find that this technology is technologically available, economically achievable, and has acceptable non-water quality environmental impacts. More specifically, the technology basis for BAT would include chemical precipitation to remove suspended solids and scaling compounds prior to treatment with one or more stages of nanofiltration, electrodialysis reversal (EDR), RO, and/or forward osmosis. The permeate from the final stage of treatment would then be recycled back into the plant either as FGD makeup water or boiler makeup water.[21]

In the subsection immediately below, EPA discusses its rationale for proposing membrane filtration as BAT for the control of FGD wastewater. In the following subsection, EPA discusses why it is not proposing as its main option other zero discharge technologies as BAT but is taking comment on such technologies. In the final subsection, EPA discusses why it is not proposing a less stringent technology as BAT.

[20] EPA proposes to include language in the final rule that makes clear that if any provisions of the final rule are reviewed and vacated by a court, it is EPA's intent that as many portions of the rule remain in effect as possible.

[21] The 2020 rule finalized an exemption from the definition of FGD wastewater applicable to ''treated FGD wastewater permeate or distillate used as boiler makeup water.''

a. Membrane Filtration

Availability of membrane filtration. EPA is proposing to determine that membrane filtration is available for use by the steam electric industry to control discharges of FGD wastewater. Such a finding is consistent with the technology forcing nature of BAT as described in the legislative history and legal precedents discussing this provision. ''In setting BAT, EPA uses not the average plant, but the optimally operating plant, the pilot plant which acts as a beacon to show what is possible.'' (*Kennecott* v. *EPA,* 780 F.2d 445, 448 (4th Cir. 1985) (citing *A Legislative History of the Water Pollution Control Act Amendments of 1972,* 93d Cong., 1st Sess. (Comm. Print 1973), at 798). BAT is supposed to reflect the highest performance in the industry and may reflect a higher level of performance than is currently being achieved based on technology transferred from a different subcategory or category, bench scale or pilot plant studies, or foreign plants. *Southwestern Elec. Power Co.* v. *EPA,* 920 F.3d at 1006; *Am. Paper Inst.* v. *Train,* 543 F.2d 328, 353 (D.C. Cir. 1976); *Am. Frozen Food Inst.* v. *Train,* 539 F.2d 107, 132 (D.C. Cir. 1976). BAT may be based upon process changes or internal controls, even when these technologies are not common industry practice. *See Am. Frozen Foods,* 539 F.2d at 132, 140; *Reynolds Metals Co.* v. *EPA,* 760 F.2d 549, 562 (4th Cir. 1985); *California & Hawaiian Sugar Co.* v. *EPA,* 553 F.2d 280, 285–88 (2nd Cir. 1977). As recently reiterated by the U.S. Court of Appeals for the Fifth Circuit, ''Under our precedent, a technological process can be deemed available for BAT purposes even if it is not in use at all, or if it is used in unrelated industries. Such an outcome is consistent with Congress'[s] intent to push pollution control technology.'' *Southwestern Elec. Power Co.* v. *EPA,* 920 F.3d at 1031 (citation and internal quotations omitted).

As further discussed below, EPA is proposing to base its determination that membrane filtration is available for control of pollutants found in FGD wastewater on the numerous full-scale foreign installations of membrane filtration to treat FGD wastewater, the large number of successful domestic and international pilot tests of membrane filtration on FGD wastewater, successful use of membrane filtration on other steam electric wastestreams, and the use of membrane filtration on wastestreams in a many different industries besides the steam electric industry.

In the 2020 rule, EPA determined that membrane filtration was not available to control FGD wastewater industrywide, primarily due to the lack of a full-scale membrane filtration system in use to control FGD wastewater discharges at a U.S. facility. There was also discussion of possible uncertainties or data gaps in the record regarding foreign plants, pilot tests, or use of membrane filtration on other wastestreams. When EPA promulgated the 2020 rule, however, the Agency was aware of membrane filtration being successfully used on FGD wastewater at 12 foreign plants, on FGD wastewater in 20 domestic pilots, and on several wastestreams with characteristics similar to those of FGD wastewater both within the steam electric sector and in other industries. The language and intent of the CWA, repeatedly confirmed by Federal appellate courts, demonstrates that Congress intended that BAT reflect the best performing plant (*see, e.g., Kennecott* v. *EPA,* 780 F.2d. at 447; *Southwestern Elec. Power Co.* v. *EPA,* 920 F.3d at 1018). Accordingly, some might argue that the amount of information in the 2020 record was sufficient to support a finding of membrane filtration as BAT for control of FGD wastewater discharges. Based on EPA's current record, which contains additional information regarding the application of membrane filtration to FGD wastewater and other wastestreams inside and outside the steam electric industry,[22] the weight of the evidence supports the Agency's proposed conclusion that membrane filtration is available in the industry to control FGD wastewater discharges, notwithstanding the uncertainties raised in the 2020 rule. 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); *Motor Vehicle Mfrs. Ass'n* v. *State Farm Mutual Auto. Ins. Co.,* 463 U.S. 29, 42 (1983). Thus, for the following reasons, EPA proposes coming to a different conclusion regarding the availability of membrane filtration than in it did in the 2020 rule.[23]

International installations. At the time of the 2020 rule, the Agency cited 12 foreign installations of membrane filtration on FGD wastewater.[24] These systems began operating as early as 2015, and all of the systems were designed to operate as zero discharge systems.[25] Since the 2020 rule, EPA has become aware of additional information about these international installations that supports its proposed determination that membrane filtration is available for control of FGD wastewater discharges. In particular, the Agency has learned that certain Chinese facilities with membrane installations have successfully achieved zero discharge of FGD wastewater, in part by adjusting the ratios and dosages of the specific chemicals used in their chemical precipitation pretreatment systems.[26] EPA also has learned that certain Chinese plants with later installations did not need to pilot membrane filtration systems before successfully installing and operating them at full scale. The operating information from the previous installations was sufficient to successfully install a full-scale membrane system without the need for an intermediate pilot.[27]

In the 2020 rule, EPA stated that there were too many unknowns about the foreign installations to support a finding of availability, including not knowing enough about their configurations, operations, performance, or long-term maintenance. These American-made systems have continued to operate since the 2020 rule, with the oldest now

[22] Caselaw supports that EPA may base BAT on technologies used in other industries. *See, e.g., Kennecott* v. *EPA,* 780 F.2d at 453 (''Congress envisioned the scanning of broader horizons and asked EPA to survey related industries and current research to find technologies which might be used to decrease the discharge of pollutants.'').

[23] EPA also recognizes that, while it may change policies based upon a reasoned explanation, where a prior policy has engendered serious reliance interests, those interests must be taken into account. *FCC* v. *Fox Television Stations, Inc.,* 556 U.S. at 515 (citation omitted). EPA has taken reliance interests into account in this rulemaking, as is clear from EPA's proposal in Section VII.C.4 of this preamble, below, to create a new subcategory for early adopters who relied on certain of EPA's past determinations. EPA also notes that no NPDES permittee has certainty of its limitations beyond its 5-year NPDES permit term, as reissued permits must incorporate any newly promulgated technology-based limitations as well as potentially more stringent limitations necessary to achieve water quality standards. *See* 40 CFR 122.44(a) & (d).

[24] ERG, 2020. Technologies for the Treatment of Flue Gas Desulfurization Wastewater. DCN SE09218.; ERG, 2020. Notes from Call with DuPont. DCN SE08618.; Beijing Jingneng Power. 20177. Beijing Jingneng Power Company, Ltd. Announcement on Unit No. 1 of the Hbei Shuoshou Jingyuan Thermal Power Co., Ltd. Passing Through the 168-hours Trial Operation. (13 November). DCN SE08624.; Broglio, Robert. 2019. Doosan. Vendor FGD Wastewater Treatment Details—Doosan. (15 July). DCN SE07107.; Lenntech. 2020. Lenntech Water Treatment Solutions. Flue Gas Desulfurization Treatment. DCN SE08622.; Nanostone. 2019. China Huadian Jiangsu Power Jurong Power Plant FGD Wastewater Zero Liquid Discharge Project was Awarded the Engineering Star Award. (27 June). DCN SE08628.

[25] *Technologies for the Treatment of Flue Gas Desulfurization Wastewater, Coal Combustion Residual Leachate, and Pond Dewatering* (SE10281).

[26] SE06915.

[27] SE08618.

operating for seven years. This continued operation suggests that EPA's concerns in 2020 may have been overstated. Additional data on foreign system configurations and operations have also enhanced the Agency's understanding of these systems.[28] Particularly, EPA was able to learn more about the issues with pretreatment identified at the pilot stage for one of the first Chinese installations. These issues were a result of the FGD wastewater's high suspended solids and high hardness. While these issues were identified at the outset of pilot testing, they were sufficiently resolved through adjustment of the chemical precipitation pretreatment process, leading the facility to install the system at full scale. For later installations at different sites, this Chinese utility ceased conducting pilot tests since appropriate pretreatment steps had already been identified.

In the 2020 rule, EPA also stated that there was not enough information to know if the foreign installations could continually operate as zero discharge systems or whether there would be some periods during which discharges occur. EPA notes that two additional years of zero discharge operation for these foreign plants have occurred since the 2020 rule, which supports a finding that continuous zero discharge operations are achievable. As discussed in Section XIV of this preamble, while EPA proposes zero discharge of pollutants in FGD wastewater, the Agency solicits comment on alternative membrane filtration-based BAT limitations if comments demonstrate that a regular or intermittent discharge is necessary for some plants. For the reasons discussed above, the installation and operation of membrane filtration to treat FGD wastewater abroad supports the proposed BAT basis of membrane filtration for FGD wastewater discharges.

Pilot applications. Although EPA has sufficient information to propose that membrane filtration is available based on foreign installations alone, pilot applications also support the availability of membrane filtration for control of FGD wastewater discharges. In the 2020 rule record, the Agency cited 20 pilot applications of membrane filtration on FGD wastewater (19 domestic and one international).[29] While EPA stated that there were data gaps associated with the pilot studies that prevented a finding that membrane filtration is available, these gaps primarily related to the development of numeric limitations, and EPA nevertheless established limitations based on membrane filtration technology in the VIP. Furthermore, the record showed that membrane filtration pilots in the United States have demonstrated success removing pollutants from FGD wastewater under a number of pretreatment settings, whether performed without chemical precipitation pretreatment, with chemical precipitation pretreatment, or following biological treatment.[30] While specifics of these reports are claimed as CBI, EPA notes that the authors of several pilot test reports gave glowing reviews of the technology and detailed a number of advantages that membrane filtration offered versus biological treatment.

One of these reports, *Performance Evaluation of a Vibratory Shear Enhanced Processing Membrane System for FGD Wastewater Treatment,* which was published in 2014 but recently made publicly available, found that the piloted membrane filtration technology reliably removed the vast majority of pollutants in FGD wastewater. This pilot of the Vibratory Shear Enhanced Processing/Spiral Reverse Osmosis (VSEP/RO) system from New Logic Research, Inc. was performed at the Water Research Center at Georgia Power's Plant Bowen. The pilot included operations in both single pass mode (*i.e.,* continuous operations) and batch mode (focused on maximizing water recovery) on moderate TDS FGD wastewater and high TDS VSEP/RO concentrate. As explained in the report, ''The first stage, VSEP pilot unit, removed approximately 94% TDS, while the second stage, Spiral RO pilot unit, removed an additional 5.8% TDS, yielding an overall TDS removal efficiency of 99.8%.'' Furthermore, the system successfully removed pollutants even when the pollutant concentrations were increased from an average of approximately 15,000 mg/L TDS to an average of approximately 54,000 mg/L TDS, demonstrating the versatility of the system across a range of concentrations. Finally, the system continued operation without decreased performance due to scaling/fouling. ''In both modes of operation (single-pass and batch concentration), no irreversible membrane fouling, no irregular transmembrane pressure (TMP) increase was observed throughout the project.'' This appeared to result from a combination of the acid/base cleanings and the VSEP membrane vibration design/mechanism. This pilot supports that membrane filtration systems can successfully remove pollutants under a variety of TDS concentrations and scaling potentials found in FGD wastewater.

Since the 2020 rule, EPA has also become aware of new information on three additional domestic pilot applications of membrane filtration on FGD wastewater. Each of these pilots was performed with a different technology and demonstrated successful removal of pollutants in FGD wastewater and recovery of usable permeate. In particular, the first-of-its-kind domestic pilot of an EDR pilot plant for FGD wastewater indicates that treatment with membrane filtration has continued to advance and become more available. This pilot is detailed in EPRI (2020), which found that ''The Flex EDR Selective pilot plant reliably operated for 61 days, 24/7, including weekends and unattended overnights.'' Other key findings included an average 93 percent water recovery, 98 percent uptime of continuous operations (more than 1440 hours), selective removal of chloride, the elimination of the need for soda ash softening, ''demonstrated versatility to treat wastewater of different concentrations and water chemistries with the same treatment plant,'' and the potential for cost savings when compared to comparable treatment systems. Thus, the weight of evidence available from a growing number of pilot studies supports the Agency's proposed conclusion that membrane filtration is BAT for FGD wastewater discharges.

Application to other wastestreams. As EPA explained in the 2020 rule, membrane filtration is used in full-scale applications to other wastestreams in the steam electric power sector and other industrial sectors. The domestic steam electric power sector regularly uses membrane filtration for boiler makeup water,[31] cooling tower

[28] SE10245.

[29] One of the systems EPA was aware of for the 2020 rule was a long-term pilot project at one facility, which is a commercial-scale system that may have sufficient capacity to treat the full FGD wastestream moving forward. Nevertheless, because the company is still making changes to the operation of the plant's FGD system, has also pilot tested a biological treatment system, and has continued to leave the possibility of biological treatment for compliance open, EPA defers to the company's characterization of this system as a pilot. Thus, it is not considered a domestic, full-scale installation.

[30] In one case, a utility conducted a successful membrane pilot even when there were significant failures in the performance of upstream pretreatment systems leading to excessive TSS passthrough to the membrane system.

[31] EPRI (Electric Power Research Institute). 2015. *State of Knowledge: Power Plant Wastewater Treatment—Membrane Technologies.* August. 3002002143.

blowdown,[32] and ash transport water.[33] Other industrial sectors with full-scale membrane filtration applications include the textiles,[34] chemical manufacturing,[35] mining,[36] agriculture, oil and gas extraction,[37] food and beverage,[38] microelectronics/semiconductors,[39] landfills,[40] and automotive industries.[41]

In the 2020 rule, EPA stated that some of these other applications did not show that membrane filtration was available for use on FGD wastewater by focusing on the differences between specific characteristics of these individual wastewaters and FGD wastewater. Information in the 2020 record and the current record, however, indicates that there are many similarities between FGD and the non-FGD wastestreams where membranes have been utilized. In the 2020 rule record, EPA discussed that cooling tower blowdown at steam electric plants and desalination in oil and gas extraction were examples where membrane filtration was used in full-scale applications for treating high TDS wastewaters, a characteristic of FGD wastewater (85 FR at 64664–64665, October 13, 2020). The 2020 rule record also established that mining wastewaters, which are high in gypsum scaling potential (another characteristic of FGD wastewater), have been successfully treated with membrane filtration applications. Finally, the 2020 rule record established that despite the high variability in ash transport water (a third characteristic of FGD wastewater), it was successfully treated with membrane filtration. This information indicates that membrane filtration can operate effectively on wastestreams that contain several characteristics of FGD wastewater, including high TDS, high gypsum scaling potential, and high variability.[42] Thus, based on the information gathered in both EPA's prior and current records, the utilization of membrane technology on other wastestreams supports the Agency's proposed conclusion that membrane filtration technology is BAT for FGD wastewater discharges.

For all the foregoing reasons, EPA proposes to find that membrane filtration is technologically available for the control of discharges in FGD wastewater. Moreover, membrane filtration would make reasonable further progress toward the Act's goal of eliminating the discharge of all pollutants because it would result in zero discharge of FGD wastewater from steam electric power plants.

Economic achievability of membrane filtration. EPA proposes to find that the costs of membrane filtration for control of FGD wastewater discharges are economically achievable. Under the CWA, BAT limitations must be economically achievable. Courts have interpreted that requirement as a test of whether the regulations can be ''reasonably borne'' by the industry as a whole. *Chem. Mfrs. Ass'n* v. *EPA,* 870 F.2d 177, 262 (5th Cir. 1989); *BP Exploration & Oil* v. *EPA,* 66 F.3d 784, 799–800 (6th Cir. 1996); *see also Nat'l Wildlife Fed'n* v. *EPA,* 286 F.3d 554, 570 (D.C. Cir. 2002); *CPC Int'l Inc.* v. *Train,* 540 F.2d 1329, 1341–42 (8th Cir. 1976), *cert. denied,* 430 U.S. 966 (1977). ''Congress clearly understood that achieving the CWA's goal of eliminating all discharges would cause 'some disruption in our economy,' including plant closures and job losses.'' *Chem. Mfrs. Ass'n* v. *EPA,* 870 F.2d at 252 (citations omitted); *see also id.* at 252 n.337 (reviewing cases in which courts have upheld EPA's regulations that projected up to 50 percent closure rates). Although the 2020 rule cited the increased cost of membrane filtration as compared to the selected technology basis as a reason for rejecting membrane filtration,[43] the Agency did not go so far as to find that the costs of membrane filtration were not economically achievable at that time. EPA proposes to find that the costs of membrane filtration for FGD wastewater are economically achievable for the industry as a whole, as discussed further below and in Sections VII.F and VIII of this preamble.

Non-water quality environmental impacts of membrane filtration. EPA proposes to find that the non-water quality environmental impacts of membrane filtration are acceptable. For further discussion of these impacts, see Sections VII.G and X of this preamble. There was one non-water quality environmental impact that the 2020 rule found was unacceptable. In that rule, EPA expressed concern that use of membrane filtration would unacceptably limit the beneficial use of FA. The 2020 rule record and the current record demonstrate that the beneficial use of FA as an admixture or to replace Portland cement in concrete provides a substantial environmental benefit. As such, the potential that using FA to help dispose of brine from membrane filtration would limit this beneficial use continues to be potentially the most substantial non-water quality environmental impact when considering whether membrane filtration is BAT. Nevertheless, in light of the facts and analyses described in the following paragraphs, EPA proposes to find that these non-water quality environmental impacts are acceptable, most importantly because EPA's record indicates that there is sufficient FA to accommodate both FGD brine encapsulation needs following membrane filtration of FGD wastewater and the beneficial use market.

At the outset, EPA notes that the 2020 rule record discusses two uses of FA: FA fixation and brine encapsulation. FA fixation occurs when a facility conditions its dry FA with FGD wastewater rather than fresh makeup water.[44] The use of FA fixation prior to the 2020 rule is partly due to the very low costs of FA conditioning compared to other wastewater treatment technologies for FGD wastewater, as well as the potential to eliminate the discharge of FGD wastewater. The 2020 rule record also included discussion of brine encapsulation. Brine encapsulation is the process of mixing raw FGD wastewater or concentrated

[32] *See, e.g.,* 5 Daniels, D.G. 2015. *Winning the Cooling Tower Trifecta: Controlling Corrosion, Scale, and Microbiological Fouling.* Power Magazine. August 21. Available online at: *www.powermag.com/winning-the-cooling-towertrifecta-controlling-corrosion-scale-andaqmicrobiological-fouling/* (DCN SE09088).

[33] *See, e.g., www.ge.com/in/sites/www.ge.com.in/files/GE_solves_ash%20pond_capacity_issue.pdf* (DCN SE09090).

[34] ERG. 2020 Final Notes from Call with DuPont. DCN SE08618.

[35] ERG. 2020. Final Notes from Call with DuPont. DCN SE08618.

[36] ERG. 2019. Final Notes from Meeting with Pall Water. (5 March). EPA–HQ–OW–2009–0819–7613; Wolkersdorfer, Christian et al. 2015. Intelligent mine water treatment—recent international developments. (21 July). DCN SE08581; U.S. EPA. 2014. Office of Superfund and Remediation and Technology Innovation. Reference Guide to Treatment Technologies for Mining-Influenced Water. EPA 542–R–14–001. (March). DCN SE08582.

[37] CH2M Hill. 2010. Review of Available Technologies for the Removal of Selenium from Water. (June). DCN SE08583.

[38] U.S. EPA. 2022. Notes from Meeting with BKT—April 9, 2021. DCN SE010253.

[39] U.S. EPA. 2022. Notes from Meeting with BKT—April 9, 2021. DCN SE010253.

[40] ERG. 2019. Sanitized_Saltworks Vendor Meeting Notes—Final. DCN SE07089.

[41] U.S. EPA. 2022. Notes from Meeting with ProChem—April 9, 2021. DCN SE10254.

[42] Use of membrane filtration has since expanded into additional applications, treating wastewaters and industries beyond those where it was used at the time of the 2020 rule (*e.g.,* the food and beverage, microelectronics/semiconductors, landfills, and automotive industries).

[43] While the relative costs of technologies differ from plant to plant, new information obtained during the 2022 information collection confirms what was shown in the 2020 record: that, in some cases, technologies such as membrane filtration may be less costly than biological treatment at individual plants even where, on average, they would be more expensive to the industry as a whole.

[44] Conditioning is required to avoid air dispersion of the fine FA particulates.

FGD wastewater brine with FA and lime, which results in pozzolanic reactions that bind additional pollutants into the final solid matrix. Since the 2020 rule, additional facilities have evaluated FA fixation with FGD wastewater and/or encapsulation of FGD wastewater using FA and lime. In at least one instance, fixation/encapsulation was less costly than biological treatment. Thus, even without a new regulation establishing BAT limitations based on membrane filtration, the record demonstrates that implementation of the baseline 2020 rule has resulted in the use of some FA for fixation or encapsulation.

While FA fixation still may be an option for brine management, EPA evaluated the option most discussed in the record: brine encapsulation. Since the question in evaluating the impact of brine encapsulation is not whether the FA needed for these processes will be disposed of, but to what extent additional disposal curtails the FA available for beneficial use, EPA conducted an analysis of FA availability entitled *2021 Steam Electric Supplemental Proposed Rule: Fly Ash Availability* (SE10242). This analysis shows that the amount of FA needed to dispose of membrane filtration's byproduct would not have an unacceptable impact on the amount of FA that is used for beneficial purposes. In this analysis, consistent with EPA's costing methodology, the Agency conservatively assumed that all facilities generate brine from a single pass of a membrane filtration system, which is then encapsulated with FA and lime.[45] In other words, EPA conservatively assumed no further brine concentration (*e.g.,* additional membrane filtration, or thermal evaporation) would be performed that would further decrease the amount of FA needed for encapsulation.

The results of EPA's conservative FA availability analysis support the finding that there is sufficient FA for the majority of the 22 plants that would be expected to make treatment upgrades to meet the proposed limitations. Based on EPA's analysis of 2019 and 2020 EIA data, 20 of these 22 power plants that would be expected to install membrane filtration under proposed Option 3 have enough FA for encapsulation before accounting for reported FA sales. For the two remaining plants, EPA estimates there would be a combined annual FA deficiency of approximately 240,000 tons. After accounting for reported FA sales, and assuming these sales continue, EPA estimates that an additional four power plants may not have enough FA available for encapsulation—a total of six plants with a combined annual FA deficiency of approximately 750,000 tons (or approximately one percent of all fly ash generated). In light of the relatively small on-site FA deficiency estimated using conservative assumptions and, as discussed more fully below, the potential for plants to use off-site FA or additional lime for their brine encapsulation needs or available brine management alternatives that do not rely on FA or use less FA, EPA proposes that its estimate of on-site FA that may no longer be available for beneficial use after implementation of this rule does not rise to the level of an unacceptable non-water quality environmental impact.

The 750,000 ton per year shortfall of FA described above is likely an overestimate for several reasons. First, based on the 2020 EIA data, coal-fired power plants reported more than 30 million tons of FA generated annually. While there are increasing FA sales reported each year, EPA identified more than 100 coal-fired power plants generating over 9.6 million tons of unsold FA that could be redirected from disposal towards either encapsulation or other beneficial uses.[46] Thus, EPA estimates that there is enough FA to accommodate both FGD brine encapsulation needs and the beneficial use market with millions of tons still requiring disposal. In the 2020 rule record, GenOn's plans to install membrane filtration at certain facilities did not include use of FA from those facilities. Instead, GenOn had plans to send the brine offsite to be mixed with other FA and lime for disposal and continued to seek options for beneficial use of the brine.[47] The concepts of use of off-site FA or beneficial use of brine are not unique to GenOn. With respect to alternate FA, the 2022 World of Coal Ash conference included 10 sessions with abstracts discussing the harvesting and beneficiation of previously disposed ash.[48] This further supports that, after accounting for FA availability across the entire industry, the non-water quality environmental impacts of potential FA disposal associated with membrane filtration are acceptable.

Second, the Agency notes that multiple alternatives exist for handling the resulting brine that do not involve FA and thus would have no impact on the beneficial use of FA in other settings. EPA evaluated alternative scenarios including disposal of brine in a deep injection well and crystallization to a salt for disposal. With respect to disposal in a deep injection well, EPA has been encouraging efforts for water reuse rather than deep well injection, particularly in arid western climates. Most of the facilities in question here, however, are located in the Midwest and Southern U.S., places where water reuse may still be important when feasible, but not to the level that EPA would find injection to be unacceptable. With respect to crystallization and disposal of the resultant salt, none of the facilities that currently generates brine as part of a zero discharge system elects to encapsulate and dispose of that brine.[49] Rather, these facilities send the concentrated brine to a crystallizer, and these resulting salt crystals can then be disposed of without the use of FA. The costs and non-water quality environmental impacts of these alternatives are presented in *Alternative Brine Management Methodology* (SE10243). The 2015 rule record found crystallization to have acceptable non-water quality environmental impacts. Based on this most current analysis along with the 2015 record, EPA proposes to find that these alternative brine management strategies have acceptable non-water quality environmental impacts and that, while these costs are higher, they would be economically achievable.

Third, EPA also notes that the six plants with potentially insufficient FA may still be able to sell their FA if the brine encapsulation were performed with additional lime use. EPA notes that extraction, processing, and transportation associated with additional lime use would result in some additional air emissions, but that these emissions would be less than those associated with Portland cement, the material that FA replaces in its most environmentally beneficial use.

Fourth, EPA's estimates regarding non-water quality environmental impacts associated with membrane filtration's byproduct are likely conservative (an overestimate) because, even where encapsulation will be the

[45] While EPA's costs assume a polishing stage RO, the brine from that system in returned to the first stage system.

[46] EPA also notes that the 2020 rule record failed to acknowledge that both the American Coal Ash Association and EPA have historically considered waste stabilization and solidification as a category of beneficial use. *See, e.g., www.acaa-usa.org/wp-content/uploads/coal-combustion-products-use/ACAA-Brochure-Web.pdf.*

[47] Notes from Call with GenOn (SE08614).

[48] Session abstracts are available online at: *www.woca2022.conferencespot.org/event-data/activity.*

[49] While these systems are thermal systems rather than membrane systems, the brine generated would not differ substantially in its ultimate characteristics.

ultimate brine management scenario, further concentration of the brine is not only possible, but probable for at least some facilities. For example, one utility evaluating 2020 rule VIP-compliant systems for a specific facility discussed how it would send the membrane reject brine to a thermal system to further reduce the volume of FGD brine to be encapsulated. This process would result in less demand for FA due to the decreased volume of brine.

Finally, the 2020 record indicated that the management of FGD brine could actually lead to new beneficial uses. At least one Chinese plant was taking its brine down to salts and then selling its salts for an industrial use.[50] Where companies are ultimately able to beneficially use some of the brine in lieu of disposal, this would be a positive non-water quality environmental impact. Thus, both ongoing evaluation and historical practice indicate EPA's assumptions regarding FA use to encapsulate FGD brine is likely a conservative estimate of the amount of ash that will be diverted from beneficial use to disposal. All of the above information supports EPA's proposed finding that the non-water quality environmental impacts of membrane filtration are acceptable.

b. Other Zero Discharge Technologies

For this proposal, EPA evaluated other zero discharge technologies that could also eliminate the discharge of FGD wastewater. However, EPA is not relying upon them as a basis for proposed BAT limitations because they achieve the same pollutant reductions as the proposed BAT technology basis (membrane filtration) but at a higher cost. Nevertheless, EPA solicits comment on whether the Agency should determine in a final rule that any one or more of these technologies constitutes an additional BAT technology basis for controlling pollutants discharged in FGD wastewater in addition to membrane technology, or alternatively, in place of membrane technology.

Currently, 36 coal-fired power plants in the United States operate wet FGD systems and manage their wastewater to achieve zero discharge.[51] These plants achieve zero discharge using evaporation ponds, recycling of FGD wastewater, ash fixation, thermal systems (*e.g.,* falling film evaporators), or SDEs. Since 2009, approximately 15 additional plants that also operated wet FGD systems and achieved zero discharge of FGD wastewater have retired or refueled such that the FGD wastewater has been eliminated. While some of these systems (evaporation ponds, fixation, and recycling) may not be available at every single site,[52] the number of thermal and SDE systems both domestically and internationally in use on FGD wastewater demonstrates that they are commercially available, and thus potentially technologically available, as technologies for treating FGD wastewater to meet zero-discharge limitations.[53] Specifically, at least some steam electric power plants have used the traditional thermal systems [54] and SDEs [55] to achieve zero discharge of FGD wastewater domestically and internationally for years, and several recent electric utility reports acknowledge this fact.[56] [57] [58] [59] EPA has separately evaluated the costs of thermal and SDE systems. Costs per facility have decreased over time, and due to retirements and fuel conversions, total costs have decreased substantially. Although EPA has not estimated potential closures associated with these technologies using the same model it has for supporting the economic achievability of Option 3, as discussed more in Section VIII of this preamble below, EPA does not expect the costs associated with these technologies to have a significant impact on industry closures. In that case, the costs of these technologies, although higher than the costs estimated for industrywide membrane filtration,[60] would be reasonable for the category as whole, and thus economically achievable.[61] [62] Furthermore, consistent with the findings of the 2015 rule, EPA proposes to find no unacceptable non-water quality environmental impacts from operation of thermal systems and proposes that SDEs have similarly acceptable non-water quality environmental impacts.[63]

EPA solicits comment on whether the Agency should identify, in any final rule, one or more of the technologies of evaporation ponds, recycling of FGD wastewater, ash fixation, thermal systems (*e.g.,* falling film evaporators), or SDEs as a BAT technology basis for control of FGD wastewater discharges, in addition to membrane filtration technology. EPA solicits comment on whether such additional BAT basis or bases would be technologically available and economically achievable, and whether they would have acceptable non-water quality environmental impacts. EPA also solicits comment on whether any one or more of these alternative zero discharge technologies should be the BAT technology basis for control of FGD wastewater discharges in lieu of chemical precipitation plus membrane filtration.

c. EPA Proposes To Reject as BAT Less Stringent Technologies Than Membrane Filtration

Except for the early adopter subcategory discussed in Section VII.C.4 of this preamble, EPA is not proposing to base BAT on chemical precipitation followed by a low hydraulic residence time biological treatment including ultrafiltration, the technology which EPA determined to be BAT in the 2020 rule. Under CWA section 301(b)(2)(A), BAT is supposed to result in ''reasonable further progress toward the national goal of eliminating the discharge of all pollutants'' and ''shall require the elimination of discharges of all pollutants if the Administrator finds . . . that such elimination is technologically and economically achievable'' as determined in accordance with CWA section 304(b)(2)(B). The record shows that the 2020 rule industrywide BAT technology

[50] Final DuPont Meeting Notes (SE08618), Notes from Vendor Call with DuPont October 29 and December 8, 2021 (SE10245).

[51] A 37th project that will result in zero discharge may have also been completed: *www.woodplc.com/insights/articles/engineering-solutions-for-wastewater-treatment.*

[52] EPA acknowledged as much in both the 2015 and 2020 rules.

[53] *See, e.g.,* APEC (Asia-Pacific Economic Cooperation) Energy Working Group. 2015. *Water Energy Nexus: Coal-Based Power Generation and Conversion—Saving Water.* EWG 08/2014 A. December. Available online at: *www.apec.org/docs/default-source/Publications/2017/2/Water-Energy-Nexus-Coal-Based-Power-Generation-and-Conversion-----Saving-Water/217_EWG_APEC-Energy-Water-Nexus-Report-20161230-_CPAU_010217.pdf.*

[54] The Italian thermal systems discussed first in the 2013 proposed rule have been in operation for over a decade.

[55] Spray dry absorbers, effectively the same technology as the SDE, have been in use for decades to capture the same pollutants present in FGD wastewater.

[56] ''Proven technology (considered BAT for new sources by EPA). 3+ U.S. installations and 6+ European installations by Aquatech'' (SE07206).

[57] SE10234.

[58] SE09998.

[59] EPRI (Electric Power Research Institute). 2017. *Thermal Evaporation Technologies for Treating Power Plant Wastewater: A Review of Six Technologies.* 000000003002011665. (SE06971).

[60] The record indicates that individual utilities have found thermal and/or SDE systems to be less expensive than membrane (and even biological) systems in some cases.

[61] Thermal Evaporation Cost Methodology (SE10246).

[62] Spray Dryer Evaporator Cost Methodology (SE10247).

[63] EPA evaluated the non-water quality environmental impacts of these technologies in *Alternative Brine Management Methodology* (SE10243). EPA performed this evaluation in the context of brine management technologies for membrane filtration, and the types of impacts and findings would remain the same even if used as standalone technologies.

basis for FGD wastewater removes fewer pollutants than the BAT basis of chemical precipitation plus membrane filtration identified in this proposal. Similarly, except for the permanent cessation of coal combustion subcategory discussed in Section VII.C.3 of this preamble, EPA is not identifying the less stringent (and previously rejected) technologies of surface impoundments or chemical precipitation, as these technologies too will remove fewer pollutants than the BAT in this proposal.

2. BA Transport Water

EPA is proposing dry handling or closed-loop systems as the technology basis for establishing BAT limitations to control pollutants discharged in BA transport water. EPA proposes to find that these technologies are technologically available, are economically achievable, and have acceptable non-water quality environmental impacts after evaluating the factors specified in CWA section 304(b)(2)(B). Specifically, dry handling systems include mechanical drag systems (*e.g.,* submerged chain conveyors), submerged grind conveyors (*e.g.,* compact submerged conveyors), air-cooled conveyor systems, and pneumatic systems. Closed-loop systems consist of remote mechanical drag systems paired with any necessary storage tanks, chemical addition systems, and/or RO treatment necessary to fully recycle BA transport water.[64]

In the 2020 rule, EPA rejected dry handling or closed-loop systems as the BAT technology basis in favor of high recycle rate systems due to process changes plants made to comply with the CCR rule (*i.e.,* re-routing non-CCR wastes to their wet BA handling systems to avoid sending them to their unlined surface impoundments, as the CCR rule's cease-receipt-of-waste date approached), as well as the additional costs of dry handling or closed-loop systems. EPA also stated in 2020 that many plants may not, as a technical matter, be able to fully close their BA handling systems to operate without discharge. Upon further careful consideration of the record and the CCR rule, EPA does not think that plants need a purge allowance to comply with the CCR rule. While in some cases plants may incur additional costs to achieve zero discharge by making process changes, the widespread use of dry handling or closed-loop systems supports the view that these technologies are available. As explained below, EPA proposes to find that the technologies are available and economically achievable, and they have acceptable non-water quality environmental impacts. Thus, EPA is proposing dry handling or closed-loop systems as the BAT technology basis for BA transport water.

In the first subsection immediately below, EPA discusses its rationale for proposing dry handling or closed-loop systems as BAT for BA transport water. In the following subsection, EPA discusses why it is not proposing less stringent technologies than dry handling or closed-loop systems. In the final subsection, EPA solicits comment on issues associated with a BA transport water purge allowance and bottom ash contact water.

a. Dry Handling or Closed-Loop Systems

Availability of dry handling or closed-loop systems. Based on the record, EPA proposes to find that dry handling or closed-loop systems are technologically available. At the time of the 2020 rule, EPA estimated that more than 75 percent of plants already employed dry handling systems or wet sluicing systems in a closed-loop manner, or had announced plans to switch to such systems in the near future. The high percentage of plants already employing these systems indicates that they are technologically available. Some of these systems have been in use since the 1970s, and today, most facilities have installed one or more such systems.[65]

In the 2015 and 2020 rule preambles, EPA discussed the widespread use of dry handling systems for control of BA transport water servicing approximately 200 EGUs at over 100 plants. In the 2020 rule, EPA also discussed advances in dry BA handling systems. Specifically, the Agency discussed a newer technology called submerged grind conveyors (one example of which is called a compact submerged conveyor). At the time, compact submerged conveyors were known to be installed and in operation at two plants. EPA has since learned that about 12 compact submerged conveyors have been installed.[66] [67] Partly due to the increased use of compact submerged conveyors, more dry handling systems are currently in place than EPA originally forecasted. For example, as indicated in the 2020 rule record, one utility commented that it had space constraints at a facility that would preclude the installation of a compact submerged conveyor, and EPA thus projected that this facility would employ a high recycle rate system under the 2020 rule. Since the 2020 rule, however, that utility ultimately proceeded to install a different dry handling system, which highlights the broad array of dry handling options available for coal-fired power plants, regardless of their configuration. Even where space constraints may prohibit certain dry systems, a plant could use a pneumatic system, albeit at a somewhat greater cost. The 2020 rule record included information on 50 pneumatic installations from as early as 1992. Given that BAT is to reflect the best performing plant in the field *Kennecott* v. *EPA,* 780 F.2d at 447, and the facts in the record support the use of dry handling technology to achieve zero discharge of BA transport water, EPA could propose to identify dry handling as the sole technology basis for control of BA transport water. Nonetheless, as it did in the 2015 rule, EPA is proposing to also identify closed-loop systems as a BAT technology basis for controlling discharges of BA transport water, given that a limited number of plants may find that option to be more attractive due to space constraints and lower costs when compared to a pneumatic system.

After the 2015 rule and throughout the 2020 rulemaking, certain industry representatives argued that there are challenges to operating a closed-loop BA handling system in a truly zero discharge manner. They argued that closed-loop systems, including remote MDS and dewatering bins, cannot maintain fully closed-loop operations due to chemistry issues or water imbalances in the system, such as those that might occur from unexpected maintenance or large precipitation events. However, even accounting for these issues, the 2020 rule did not find that closed-loop systems are not technologically available. Information in EPA's 2020 rule record indicated that plants can operate their closed-loop systems to achieve zero discharge, although this could require some process changes and their resulting costs. The 2020 record found that industry could achieve complete recycle

[64] In addition to remote MDSs, non-BAT technologies include many dewatering bins (also known as hydrobins), and surface impoundments may also have the flexibility to operate as closed-loop systems. Like remote MDSs, the latter systems may need to install chemical addition systems (acid, caustic, and/or flocculants), RO systems, and/or additional storage tanks to operate as fully closed loop.

[65] One vendor estimates that only seven ash conversions remain in the entire industry.

[66] Some utilities have even suggested that the discussion of compact submerged conveyors in the final 2020 rule preamble and additional compliance timeframes have led them to consider these newer dry systems rather than a previously contemplated high recycle rate/closed-loop system.

[67] Final Burns & McDonnell Meeting Notes (SE10248).

at an additional cost of $63 million per year in after-tax costs (beyond the costs of the systems themselves) over the 2015 rule's estimates. Moreover, EPA's cost estimates at the time were admittedly conservative, as the Agency assumed the need to treat 10 percent of the BA handling system's volume using RO for every facility with a closed-loop system. See Section VIII of this preamble for a further discussion of costs associated with the proposed closed-loop system technology basis.

In the 2020 rule record, EPA discussed four potential challenges with maintaining closed-loop systems: (1) managing non-BA transport water inflows, (2) managing precipitation-related inflows, (3) managing unexpected maintenance events, and (4) maintaining water system chemistry. As further discussed below, based on the current record, none of these previously discussed challenges provide a reasoned basis for finding closed-loop systems not to be technologically available, although these issues may in certain circumstances require a plant to incur additional costs.

First, in 2020, EPA stated that managing non-BA transport water inflows had the potential to result in water imbalances within a closed-loop system. With respect to the inflow of other wastestreams into the BA handling system, EPA's record in the 2015 and 2020 rules indicates that closed-loop systems (*i.e.,* remote MDSs) can be sized to handle these additional wastestreams.[68] To ensure effective operations when designing and procuring closed-loop systems, facilities should seek to size these systems for all wastestreams the system would handle. Moreover, there is no evidence in the record that unanticipated inflows cannot be addressed with reasonable steps.[69] EPA solicits comment on whether the best performing remote MDSs have documented non-BA transport water inflows regularly exceeding the ability of the systems to reuse their wastewater. EPA solicits comment providing data from any remote MDS that would suggest whether a purge allowance is or is not appropriate due to the technological availability of the system.

Second, in 2020, EPA stated that managing precipitation-related inflows had the potential to result in water imbalances in the BA handling system. However, EPA's record shows that precipitation-related inflows can be adequately managed with design improvements, including the use of roofing where appropriate. The 2015 BAT technology basis and 2020 rule remote MDS technology designs included and costed for covers to avoid collecting precipitation.[70] There is no record evidence that this previously discussed precipitation-related challenge cannot be overcome with reasonable steps and, therefore, this concern does not provide a basis for rejecting closed-loop systems as BAT. EPA solicits comment on whether the best performing remote MDSs have documented precipitation inflows that have exceeded the ability of the systems to reuse or store their wastewater, or whether the technology issue can be addressed by undertaking measures at a reasonable additional cost. EPA solicits comment providing data from such systems that would suggest whether a purge allowance is or is not warranted. EPA solicits comment on allowing for unlimited one-time purges due to large precipitation events exceeding a 10-year storm event of 24-hour or longer duration (*e.g.,* a 30-day storm event) where drains or other precipitation-collection components may not be amenable to roofs or other covers, including any necessary reporting or recordkeeping requirements. Due to the increasing storm severity associated with climate change, EPA also solicits comment on whether a different type of storm event would be more appropriate. Should EPA allow such discharges, the Agency solicits comment on whether to require facilities to submit information when they discharge, such as why the discharge was necessary, how much was discharged, or any other specific information (*e.g.,* meteorological information) that would be helpful to the permitting authority or public at large.

A third previously discussed challenge mentioned in the 2020 rule to operating a remote MDS as a closed-loop system is the possibility of infrequent maintenance events that might fall outside the 2015 rule exemption of ''minor maintenance'' and ''leaks'' from the definition of BA transport water. EPRI (2018) listed several such maintenance events; most were expected to occur less than annually. EPRI provided information about the estimated frequency and volume of water associated with each maintenance event; however, EPRI did not provide information about a specific remote MDS unable to manage these maintenance events with existing maintenance tanks. Furthermore, even where maintenance wastewater volumes are too large to be managed in existing maintenance tanks, utilities can, at additional cost, lease storage tanks for short-term maintenance where these infrequent maintenance events are foreseeable.[71] There is no record evidence that infrequent maintenance events cannot be overcome with reasonable steps and, therefore, this concern does not provide a basis for rejecting closed-loop systems as BAT. EPA solicits comment on whether data from such systems would suggest a purge allowance is or is not warranted, as well as on the underlying data. EPA also solicits comment on whether the Agency should expand the existing ''minor maintenance event'' exemption from the definition of BA transport water in § 423.11(p). One example of such a potential expansion could include changing the current language that excludes ''minor maintenance events (*e.g.,* replacement of valves or pipe section)'' to instead state ''minor maintenance (*e.g.,* replacement of valves or pipe sections) or infrequent (*i.e.,* occurring less than annually) maintenance events.'' Another example would be to delete the term ''minor'' and associated parenthetical and merely say ''maintenance events.'' To the extent that EPA expands this exemption in 40 CFR 423.11(p), the Agency also solicits comment on any appropriate reporting or recordkeeping requirements. For example, EPA is interested in commenters' views on whether, when a facility discharges due to a maintenance event, facilities should submit information about why it was necessary to discharge, how much was discharged, or any other specific information that would be helpful to the permitting authority or broader public. Furthermore, EPA solicits comment on whether implementation of such a change to the definition of BA transport water should require, for example, a demonstration that the maintenance water could not be managed within the system.

The final engineering challenge discussed in the 2020 rule record as a reason for selecting high recycle rate systems rather than closed-loop systems was the need to maintain water system chemistry. The 2020 rule discussed

[68] For example, the Belews Creek remote MDS discussed during the 2020 rulemaking also accepts economizer ash and pyrites (SE07137).

[69] Even including dewatering bins, which are not the basis for either the 2015 BAT for BA transport water or this proposed BAT, the 2020 record included only a single facility where the water inflows to its dewatering bin system were too great to be recycled due to the presence of other wastewaters.

[70] 2020 Supplemental TDD (EPA–821–R–20–001).

[71] In contrast, if the maintenance discharge is caused by an unforeseeable upset condition, the plant would have an affirmative defense to an enforcement action if the requirements of 40 CFR 122.41(n) are met.

potentially problematic system chemistries, such as extreme acidic conditions, high scaling potential, and the buildup of fine particulates that could clog pumps and other equipment. The 2015 closed-loop system BAT design basis included a chemical addition system to manage these system chemistries. In particular, corrosivity could be managed through pH adjustment, scaling could be managed with acid and/or antiscalants, and fines could be further settled out with polymers and other coagulants. EPRI [72] documented that some systems went slightly further, pairing the chemical addition systems with changes in operations such as higher flow rates or longer contact time. Even where all else fails, the same slipstream of purge allowed under the 2020 rule could be treated with RO and recycled back in as clean makeup water. While it is possible that addressing these issues could entail additional costs, there is no record evidence that this chemistry-related challenge cannot be overcome with reasonable steps and, therefore, this concern does not provide a basis for rejecting closed-loop systems as BAT. EPA solicits comment on the extent to which any plant using a remote MDS has tried all the processes described above and still failed to adequately control system chemistry. EPA solicits comment on whether data from such systems would suggest a purge is or is not warranted, as well as on the underlying data.

For all the foregoing reasons, EPA proposes to find that the record indicates that dry handling or closed-loop systems are technologically available for control of discharges in BA transport water. Moreover, dry handling or closed-loop systems would result in reasonable further progress toward the Act's goal of eliminating the discharge of all pollutants, as the limitations based on this technology would require zero discharge of BA transport water from the steam electric industry.

Economic achievability of dry handling or closed-loop systems. EPA proposes to find that the costs of dry handling or closed-loop systems are economically achievable for the industry as a whole. In the 2020 rule, EPA cited the additional costs of closed-loop systems as part of its basis for selecting high recycle rate systems. In the 2020 rule record, EPA noted that it had ''conservatively'' estimated costs of $63 million per year based on all facilities using a remote MDS needing a 10 percent purge to be treated with RO in order to achieve complete recycle (*i.e.,* zero discharge operations). However, EPA never found that the additional costs to achieve zero discharge were not economically achievable. Moreover, the 2020 rule record never demonstrated that a full 10 percent purge at all facilities was a realistic costing assumption. The primary basis for the 2020 rule purge allowance was a 2016 report from EPRI that involved continuous purges, the majority of which were well under one percent. Thus, in the 2020 rule record, EPA presented a sensitivity analysis with costs for a two percent purge treatment, which may better reflect actual operations.

Even using the more conservative cost estimates in the baseline IPM analysis for the 2020 rule (*i.e.,* full implementation of the 2015 rule),[73] the record demonstrated minimal changes in coal combustion and in steam electric power plant retirements. After updating these conservative cost estimates to $45 million per year pre-tax in proposed Option 3, the IPM analysis performed for this proposed rule continues to demonstrate that, after including the costs of treating all wastestreams—including achieving zero discharge for BA transport water—the proposed rule would result in minimal economic impacts. (For further information, see Sections VII.F and VIII of this preamble). Because EPA is required to consider whether the cost of BAT can be reasonably borne by the industry and confers on EPA discretion in consideration of the BAT factors, *see, e.g., Chem. Mfrs. Ass'n* v. *EPA,* 870 F.2d at 262; *Weyerhaeuser* v. *Costle,* 590 F.2d at 1045, EPA proposes to find that these additional costs are economically achievable as that term is used in the CWA.

Non-water quality environmental impacts of dry handling or closed-loop systems. EPA proposes to find that the non-water quality environmental impacts associated with dry handling or closed-loop systems for controlling BA transport water discharges are acceptable. See Sections VII.G and X of this preamble below for more details.

Process changes associated with dry handling or closed-loop systems. EPA also rejected closed-loop systems in the 2020 rule due to process changes happening at steam electric facilities as they move toward compliance with the CCR rule. EPA stated that as plants close their surface impoundments under the CCR rule, they may choose to send certain non-CCR wastewaters to their BA handling system. This could complicate their efforts to fully close their BA handling systems due to increased scaling, corrosivity, or plugging of equipment. Alternatively, EPA mentioned that a closed-loop requirement might incentivize plants to discharge their non-CCR wastes rather than send them to their BA handling systems for control, in which case they would be subject to less stringent requirements governing low-volume wastes. EPA also suggested that requiring limitations based on closed-loop systems could result in plants using their surface impoundments longer, assuming plants cannot build alternative storage capacity and need to continue to send their non-CCR wastes to unlined impoundments.

The rationale in the 2020 rule is not persuasive under the timeframe of any final ELG rule because by the time any BA transport water requirement would be implemented in NPDES permits, the CCR rule ash pond cease receipt of waste dates will have long since passed, or this rule's proposed subcategories could address any remaining CCR coordination issue. The CCR Part A rule required plants to cease receipt of waste in unlined surface impoundments by April 11, 2021.[74] This date has already passed, with most facilities having completed conversions from leaking, unlined surface impoundment BA handling systems to a CCR rule-compliant BA handling system (*i.e.,* systems that do not rely on unlined CCR surface impoundments). Of the remaining unlined surface impoundments, those operating under CCR Part A flexibility found in § 257.103(f)(2) are permanently ceasing coal combustion, and EPA proposes to continue to treat them differently under the subcategory for EGUs permanently ceasing coal combustion by 2028. This leaves only the unlined surface impoundments where alternative capacity is technically infeasible, a CCR Part A flexibility with maximum timeframes of October 15, 2023, and October 15, 2024, to cease receipt of waste.[75] These later dates require EPA approval.[76] Even with extensions, nearly every facility will have completed its conversion to a CCR rule-compliant BA handling method by 2024, the year in which EPA intends to promulgate any final ELG following this proposal. Since EPA expects that all facilities would comply with the CCR

[72] SE08927.

[73] The 2020 rule analysis had a baseline of zero discharge under the 2015 rule.

[74] 40 CFR 257.101(a)(1).

[75] 40 CFR 257.103(f)(1)(vi).

[76] Further information on the implementation of these Part A applications is available on EPA's website at: *www.epa.gov/coalash/coal-combustion-residuals-ccr-part-implementation.*

rule cease-receipt-of-waste provisions and have alternative BA handling systems or compliant surface impoundments by then, there are no looming deadlines and tight timeframes that would justify continued flexibility. Instead, with the work to meet these CCR deadlines completed, facilities with high recycle rate systems would be free to focus on transitioning those high recycle rate systems to closed-loop operations.[77] Thus, EPA proposes that there are no ''process change'' reasons related to the CCR rule that undermine EPA's proposed BAT basis of dry handling or closed-loop systems for control of BA transport water discharges.

b. EPA Proposes To Reject as BAT Less Stringent Technologies Than Dry Handling or Closed-Loop Systems

Except for the early adopter subcategory, EPA is not proposing to base BAT on high recycle rate systems. In the 2020 rule, EPA reversed its decision from the 2015 rule and determined that closed-loop systems were not BAT. As a result, EPA established a volumetric purge allowance (with a maximum of 10 percent of the system volume) to be determined on a case-by-case basis by the permitting authority, which required a permitting authority's BPJ analysis to determine whether that purge required further control. As discussed above, the technological issues can be resolved, albeit at potentially additional costs, which EPA now proposes are economically achievable. Furthermore, a dewatering bin or remote MDS with a purge removes fewer pollutants than the proposed BAT basis of dry handling or closed-loop systems, which the Agency proposes to find are technologically available, are economically achievable, and have acceptable non-water quality environmental impacts. Under CWA section 301(b)(2)(A), BAT is supposed to result in ''reasonable further progress toward the national goal of eliminating the discharge of all pollutants'' and ''shall require the elimination of discharges of all pollutants if the Administrator finds . . . that such elimination is technologically and economically achievable'' as determined in accordance with CWA section 304(b)(2)(B). Because high rate recycle systems achieve fewer pollutant removals than the dry handling or closed-loop systems EPA has proposed as BAT, such less stringent technologies would not result in reasonable further progress toward the CWA's goal of eliminating the discharge of pollutants.

Except for the permanent cessation of coal combustion subcategory, EPA is also not identifying the less stringent (and previously rejected) technology of surface impoundments as the technology basis for BAT, as this technology would also remove fewer pollutants than the proposed BAT basis of dry handling or closed-loop systems, which EPA proposes are technologically available, are economically achievable, and have acceptable non-water quality environmental impacts.

c. Solicitation of Comment on Additional BPJ-Based Permitting Constraints and Issues Related to BA Contact Water

Despite the preceding discussion, if EPA were to maintain the 2020 rule's purge allowance, the Agency solicits comment on whether it should establish constraints and additional requirements on where and how a purge may be allowed on a case-by-case basis. All the instances EPA is aware of involving requests by plants to purge BA transport water under the 2020 rule have included a request for a full 10 percent purge. The limitation EPA established in the 2020 rule was, however, a site-specific purge allowance with a maximum 10 percent threshold. In practice, this flexibility has resulted in a situation where BA handling systems either achieve zero discharge or purge the maximum 10 percent. EPA notes that all the chemistry-related purges discussed in EPRI (2016) were one percent or less of system volume, and it solicits comment on whether, if a final rule were to include allowance for any purge, the Agency should constrain the purge allowance to reflect the smaller continuous purge volumes in EPRI (2016). EPA also solicits comment on whether, in the event of allowance of any purge, the permittee should provide further analysis and justification to the permitting authority or if EPA should place further constraints on the permitting authority in allowing purges. For example, EPA solicits comment on whether permittees should be required to complete an engineering study, starting with closed-loop operations and slowly increasing purge as necessary after demonstrating that the system cannot be operated with the existing level of purge (*e.g.,* by using chemical addition systems, changing flows, or residence time).

Moreover, if EPA elects to retain a high recycle rate system as BAT for BA transport water, the Agency is interested in whether there should be any additional constraints on the purge allowance to ensure that the pollutant reductions achieved are consistent with the reductions expected from the BAT technology basis. In particular, EPA has become aware of system operations that recycle a high percent of water, but in practice may not achieve pollutant removals as high as those of the remote mechanical drag chain and dewatering bin systems described in the 2020 rule preamble, which were the bases for the following findings:

Based on actual, measured purge rates in EPRI (2016), however, the agency estimates that actual purge rates necessary on a day-to-day basis may be less than one percent of the system's volume, with higher purges necessary at less frequent intervals due to precipitation and maintenance. Furthermore, while surface impoundments can cover dozens of acres and contain volumes in the billions of gallons, typical high recycle rate systems have volumes closer to one-half million gallons (½ million). Thus, even assuming the proposed maximum allowable purge of 10 percent is necessary for a unit, the average gallons per day released by high recycle rate systems will be two percent of the average gallons per day released by surface impoundments, and therefore will also be 1.5 percent of the pollutant releases expected from surface impoundments. Industry-wide, EPA estimates this combination of reduced volume and increased recycling reduces discharges by 366 million lb/year of pollutants, and thus makes reasonable further progress toward the CWA goal to eliminate the discharge of pollutants. *See* 33 U.S.C. 1251(a), 1311(b)(2)(A). Therefore, it is the combination of the reduced system volume and high capacity to recycle BA transport water that supports EPA's basis for high recycle rate systems as BAT. (Emphasis added.)

As an example of such a system, following the 2020 rule, EPA became aware of one plant that intentionally constructed a concrete basin system intended to recycle only 90 percent of BA transport water (Smith et al., 2022).[78] Due to the size of this system, the 10 percent purge generated results in a much greater volume of discharged wastewater than the 2020 rule contemplated. This facility is not unique in its use of large, concrete basins. The APS Four Corners power

[77] Although EPA estimates that fully closing the loop would be less expensive than converting to dry handling, nothing would preclude a facility with a high recycle rate system from installing one of the technologically available and economically achievable dry handling systems.

[78] *See www.woca2022.conferencespot.org/event-data/pdf/catalyst_activity_28074/catalyst_activity_paper_20220329020324138_a6f09dfc_ad86_4183_9ecb_a71e88b48245.*

plant recently submitted a request for a 10 percent purge of BA transport water[79] where the claimed system volume of over 4.5 million gallons would result in a BA transport water purge of nearly one-half MGD, a volume greater than the entirety of the purges claimed for the Duke Energy coal fleet.[80] While the facility employs dewatering bins as the primary BA handling mechanism, part of this high volume discharge request appears to stem from the large concrete basins, or ''tanks,'' that APS has installed. EPA solicits comment on other facilities that have installed concrete basin systems or tanks and any facts describing the size, flows, and other operational parameters of such systems. Furthermore, should EPA ultimately elect to retain a purge allowance for BA transport water, the Agency solicits comment on whether the total volume (not just the percent) of purge should also be limited to ensure that the system achieves the pollutant removals of a true high recycle rate system (*i.e.,* a remote MDS).

While EPA is concerned that the site-specific purge in the 2020 rule may be unnecessary or not adequately justified, the Agency also notes that ''dry handling'' systems often are not completely dry. EPRI (2014) included information about an MDS with purge of 270 gpm from an under-boiler ''dry handling'' system. EPA has received additional flow diagrams in the most recent information collection that show purges from additional MDS systems.[81] Thus, while many facilities have installed pneumatic and air-cooled drag chain systems, many EGUs with ''dry handling'' due to under-boiler MDS or compact submerged conveyor systems still rely on wet hoppers that catch and cool hot (in some cases molten) BA in quench water. EPA has not considered this BA contact water to be transport water (instead considering it within the catch-all category of low volume wastewater), because, as explained in the 2015 rule, the water is not used to transport the BA, resulting in decreased contact times (and thus decreased pollutant concentrations) from the BA. While overall pollutant concentrations may be lower, leaching data in the 2015 CCR rule record indicate that some constituents wash out due to their high solubility.[82] For these pollutants, there may be little difference in concentration between transport water and contact water. In the absence of data from actual under-boiler purges, EPA solicits comment providing data and purge examples from existing dry handling systems. EPA solicits comment on whether limiting or removing the ability to purge from a high recycle rate system but not from a ''dry'' under-boiler system may result in unwarranted disparate treatment or perverse incentives. EPA solicits comment on whether there is a potential unwarranted disparity and how the Agency might address this disparity to avoid potentially encouraging larger discharges. For example, EPA solicits comment on whether it should continue to allow (or alternatively not allow, through a zero-discharge requirement) a purge for both contact water and transport water. Since contact water is not covered by the definition of transport water in 40 CFR 423.11(p), EPA solicits comment on whether the purge of such water should nevertheless be included as ''bottom ash purge water'' under § 423.11(cc) and thus subject to a BPJ analysis by the permitting authority.

3. Combustion Residual Leachate (CRL)

EPA is proposing chemical precipitation as the technology basis for establishing BAT limitations to control pollutants discharged in CRL. After evaluating the factors specified in CWA section 304(b)(2)(B), EPA proposes that this technology is available, is economically achievable, and has acceptable non-water quality environmental impacts. Specifically, the proposed BAT basis consists of chemical precipitation/coprecipitation employing the combination of hydroxide precipitation, iron coprecipitation, and sulfide precipitation.

In the subsection immediately below, EPA discusses its rationale for proposing chemical precipitation as BAT for control of leachate. In the following subsection, EPA solicits comment on whether it should base BAT for CRL on more stringent technologies, such as chemical precipitation plus biological treatment, chemical precipitation plus membrane filtration, or chemical precipitation plus thermal treatment, and whether these technologies are technologically available, are economically achievable, and have acceptable non-water quality environmental impacts, as discussed below. In the third subsection, EPA discusses why it is not proposing to establish BAT for control of pollutants in CRL based on surface impoundments. In the fourth subsection below, EPA solicits comment on additional options related to co-treatment of FGD and CRL wastewater, a potential grandfathering provision, co-treatment of CRL and stormwater, and potential differences in leachate associated with pre- and post-close of landfills. Finally, in the last subsection below, EPA solicits comment on EPA's estimates of potential costs and loads of pollutant discharges through groundwater, treatment differences, and potential subcategorization related to discharges through groundwater.

a. Chemical Precipitation

Technological availability of chemical precipitation. EPA proposes to find that chemical precipitation is technologically available for control of CRL discharges. In the 2015 rule record, EPA found that chemical precipitation systems are technologically available for treating CRL, capable of achieving low effluent concentrations of various metals, and effective at removing many of the pollutants of concern present in CRL discharges to surface waters. The Agency also found that the pollutants of concern in CRL are the same pollutants that are present in, and in many cases are also pollutants of concern for, FGD wastewater, FA transport wastewater, BA transport water, and other CCR solids. This proposed finding is consistent with the findings of this technology as the basis for the 2015 rule's NSPS and PSNS for CRL.[83]

EPA is basing the proposed effluent limitations on the chemical precipitation system for treating FGD wastewater as described in the 2015 rule record because the record indicates that CRL wastewater is similar to FGD wastewater, which the record demonstrates can be effectively treated using chemical precipitation. Specifically, the system serving as the BAT technology basis employs equalization, hydroxide and organosulfide precipitation, iron coprecipitation, and removal of suspended and precipitated solids. As discussed in Section VI of this preamble above, EPA asked eight utilities to

[79] An updated submission made to EPA has since reduced this request to between two and 2.5 percent of system volume and is currently being evaluated by the Agency.

[80] In contrast, the purge requests from Duke Energy estimated a 10 percent purge of between approximately 50,000 and 100,000 gallons per day at each of the company's five plants with such systems.

[81] These flow diagrams did not include flow rates or pollutant concentrations. (SE09754 and SE09724.)

[82] U.S. EPA (Environmental Protection Agency). 2014. *Human Health and Ecological Risk Assessment of Coal Combustion Residuals.* 2050–AE81. December. Available online at *www.regulations.gov.* Document ID#: EPA–HQ–OLEM–2019–0173–0008.

[83] In establishing chemical precipitation as the basis for NSPS, the Agency stated that chemical precipitation is a well-demonstrated technology for removing metals and other pollutants from a variety of industrial wastewaters. 80 FR 67859.

voluntarily perform CRL sampling at CCR landfills the Agency believed were new CCR rule-compliant landfills and/or expansions. EPA ultimately received supplemental CRL sampling data covering 25 landfills. EPA analyzed these data in the *CRL Analytical Data Evaluation* (SE10249) and found that CRL has a similar wastewater characterization to FGD wastewater. Chemical precipitation would make reasonable further progress toward the Act's goal of eliminating the discharge of all pollutants, as the limitations based on this technology would eliminate substantial amounts of arsenic, mercury, and other toxic pollutants from CRL discharges by the steam electric industry.

Economic achievability of chemical precipitation. EPA proposes to find that the costs of chemical precipitation for control of CRL discharges are economically achievable. This proposal includes IPM modeling of the preferred option (Option 3) which includes chemical precipitation costs for CRL. The results of the analysis show small changes in coal utilization and only one incremental retirement of a facility out of 871 steam electric power plants in the steam electric power generation industrial category. Furthermore, that plant already operates at a low capacity utilization rating. This is well within the economic impact estimated for other BAT rules and has been upheld by courts. *Chem. Mfrs. Ass'n* v. *EPA,* 870 F.2d at 252. As a result of this analysis, EPA proposes to find that chemical precipitation is economically achievable.[84] For further discussion of the economic analysis, see Sections VII.F and VIII of this preamble below.

Non-water quality environmental impacts of chemical precipitation. EPA proposes to find that the non-water quality environmental impacts associated with chemical precipitation to control CRL discharges are acceptable. See discussion below in Section VII.G and Section X of this preamble.

[84] EPA notes that the 2015 rule record indicated that the costs of treating CRL based on chemical precipitation were only marginally higher than the total costs in the selected option, which was found to result in minimal economic impacts. Furthermore, the cost screening in 2015 found that only a small portion of the plants and parent entities would experience costs greater than one percent or three percent of revenue, even with chemical precipitation treatment of CRL. While these thresholds do not necessarily equate to what is economically achievable, they may serve as a screening analysis to find that the costs do not raise economic achievability concerns.

b. More Stringent Technologies Than Chemical Precipitation

EPA solicits comment on whether the technology basis for BAT limitations to control discharges of pollutants in CRL should be based on more stringent technology, such as biological treatment, spray dry evaporation, thermal systems, or membrane filtration. The record includes plants that have successfully treated a combination of CRL and FGD wastewater with chemical precipitation as pretreatment for biological or thermal systems. This successful treatment history may further support the availability of chemical precipitation either alone or as pretreatment for more advanced systems. EPA solicits comment and additional data about these systems treating CRL beyond chemical precipitation and further solicits comment on whether and to what extent it should instead, or in addition, base BAT limitations applicable to CRL on these technologies.

With respect to biological treatment, EPA solicits comment on whether it should base BAT limitations applicable to CRL on chemical precipitation plus biological treatment. In the 2015 rule record, EPA found that chemical precipitation plus biological treatment was technologically available and in use domestically to treat a mix of FGD wastewater and CRL. Given the data cited above showing the similarity of FGD and CRL wastewater, EPA solicits comment on transferring the FGD wastewater technology basis and BAT limitations from the 2020 rule as the technology basis and BAT limitations for CRL as well.

With respect to thermal treatment, the 2020 rule record included a facility that co-treated its FGD wastewater and CRL with a thermal system to achieve zero discharge. At least four vendors have conducted thermal system pilots on CRL, and there has been one full-scale thermal system installation for the treatment of CRL. EPA has identified four vendors that have conducted successful thermal system pilots, and each of these vendors has installed multiple full-scale thermal systems at non-power plant landfills. Thus, EPA solicits comment on finalizing a zero-discharge requirement for CRL based on chemical precipitation plus thermal treatment systems and/or SDE treatment systems, or alternatively on transferring the chemical precipitation plus thermal treatment-based BAT limitations established for the FGD wastewater NSPS in the 2015 rule.

With respect to membrane treatment, as discussed above under FGD wastewater, the record is also replete with the use of membrane filtration for a variety of wastestreams with characteristics like high TDS, high scaling potential, and high variability, both within the steam electric sector and in other industries. Furthermore, one midwestern facility conducted a successful pilot of a membrane filtration system on CRL.[85] EPA solicits comment on establishing zero discharge BAT limitations for CRL based on chemical precipitation plus membrane filtration, or alternatively on transferring the membrane filtration limitations established in the VIP for FGD wastewater in the 2020 rule.

EPA also solicits comment on establishing limitations based on any combination of chemical precipitation plus membrane filtration, chemical precipitation plus thermal, and/or SDE treatment. To facilitate comments on a zero discharge option, EPA has provided memos to the record evaluating the costs of achieving zero discharge of CRL and the associated pollutant reductions.[86] Should EPA finalize BAT limitations based on more stringent technologies than chemical precipitation, EPA also solicits comment on the appropriateness of revising NSPS and PSNS for CRL based on a more stringent technology than the NSPS basis selected in the 2015 rule (chemical precipitation).

c. Less Stringent Technologies Than Chemical Precipitation

EPA is not proposing to base BAT limitations for control of CRL on surface impoundments because there are other technologies (like chemical precipitation) that achieve greater reductions in pollutant discharges, which EPA proposes are available and economically achievable, with acceptable non-water quality environmental impacts. Surface impoundments would not make reasonable further progress toward the national goal of eliminating the discharge of pollutants.

d. Solicitation of Comment on Additional Options Related to Co-Treatment of FGD and CRL Wastewater, Potential Grandfathering Provision, Co-Treatment of CRL and Stormwater, and Potential Differences in Discharges Associated With Pre- and Post-Closure of Landfills

EPA also solicits comment on whether EPA should create a

[85] This utility declined to provide the pilot in response to a voluntary request from EPA.

[86] Evaluation of Zero Discharge Options for CRL (SE10257).

subcategory allowing facilities that co-treat their FGD and CRL wastewater to meet BAT limitations based on a different technology basis than the one used by facilities treating CRL alone. EPA solicits comment on whether there are engineering obstacles to such co-treatment based on proximity of the landfill or other factors. EPA also solicits comment on whether it would be appropriate to establish either a grandfathering provision that would allow such facilities a limited payback period to recover costs on the CRL treatment investments already made before having to comply with any new limitations or another provision that would account for the potentially unique circumstances of these facilities, in light of the factors specified under CWA section 304(b).

In developing the current record, EPA received information about systems that collect leachate and stormwater in the same system. For example, one type of system involves the use of chimneys that route stormwater straight through a landfill into the leachate collection system to minimize percolation through the CCR solids. Thus, EPA also solicits comment on flexibilities that might be warranted for such systems. For example, EPA solicits comment on whether such systems should be subcategorized, or whether either the definition of CRL or the applicability of the CRL limitations should exclude discharges when stormwater exceeds specific storm events, such as events used as the basis of the BA transport water purge allowance in the 2020 rule.

EPA also discussed the differences between pre- and post-closure landfill operations with several stakeholders. For example, post-closure, the CCR rule requires landfills and surface impoundments closing with waste in place to have a cap that is graded to minimize infiltration into the CCR solids. This will result in volumes of CRL decreasing significantly post-closure. EPA solicits comment on specific information that would suggest whether different limitations should apply to the same landfill or surface impoundment pre- and post-closure. The change in flows also means the amount of capital expenditure on treatment systems (larger flows lead to larger treatment systems) might be disparate for landfills and surface impoundments nearing closure when compared to those with many operating years remaining or to those that have already closed under the CCR rule. Thus, EPA solicits comment on whether there should be flexibility for landfills and surface impoundments nearing closure such that limitations could be postponed until after closure to avoid construction of a larger, more expensive system that would operate for only a relatively short period of time. EPA also solicits comment on whether CRL generated by already closed landfills and surface impoundments should be subcategorized, as well as information demonstrating whether subcategorization is warranted.

e. Solicitation of Comment on EPA Estimates of Potential Costs and Loads of Pollutant Discharges Through Groundwater, Treatment Differences, and Potential Subcategorization

EPA also notes that unlined landfills and surface impoundments potentially discharge CRL through groundwater before entering surface water.[87] EPA, through this action, is not addressing the definition of any terms in the CWA (such as ''point source'' or ''discharge of a pollutant'') that govern when a discharge is subject to NPDES permitting requirements or when a discharge to WOTUS through groundwater is a functional equivalent of a discharge and thus subject to the Act's NPDES permitting requirement. *See County of Maui* v. *Hawaii Wildlife Fund,* 140 S. Ct. 1462 (2020). Those issues are outside the scope of this rulemaking. EPA proposes that any discharge through groundwater that is the functional equivalent of a direct discharge under the *Maui* decision would be subject to the same BAT limitations as discharges that occur at the end of pipe. To evaluate the potential costs and loads of such discharges, EPA conducted *Evaluation of Potential CRL in Groundwater* (SE10250). EPA solicits comment on the appropriateness of the Agency's proposed BAT findings and their application to any discharges of CRL via groundwater that permitting authorities ultimately determine are subject to NPDES permitting. EPA also solicits comment on the extent to which CRL discharges through groundwater might be different than other discharges potentially subject to any final rule, including specific facts demonstrating that the chemical makeup, treatment effectiveness, or other factors differ from end-of-pipe discharges of CRL. EPA solicits comment on whether such discharges of CRL through groundwater should be defined as a separate wastestream or subcategorized and how, including whether these discharges should be subject to BAT limitations on a case-by-case, BPJ basis. Should EPA reserve these limitations such that permitting authorities' BPJ would apply, section 304(b) of the CWA, 33 U.S.C. 1314(b), and 40 CFR 125.3 specify factors the permitting authority would consider when establishing BPJ-based effluent limitations for CRL. Furthermore, EPA solicits comment on whether the Agency should explicitly set BAT equal to BPJ in the regulation and include additional constraints (*e.g.,* one or more presumptive standards) that are specific to this wastestream in this industry.

4. Legacy Wastewater

EPA proposes not to establish a nationwide BAT basis for legacy wastewater at this time and instead to continue to reserve these limitations for determination by the permitting authority, using its BPJ for what is technologically available, economically achievable, and has acceptable non-water quality environmental impacts. This potential case-by-case outcome was explicitly identified by the Court in *Southwestern Elec. Power Company* v. *EPA,* 920 F.3d at 1021, as an alternative EPA should have considered.

In the first subsection immediately below, EPA discusses its rationale for BPJ-based BAT limitations to control legacy wastewater. In the second subsection, EPA discusses why it is not proposing less stringent technologies as BAT for legacy wastewater. In the last subsection, EPA discusses why it is not selecting more stringent technologies as BAT for legacy wastewater and is soliciting comment on potentially different limitations for a subset of legacy wastewater.

a. BPJ-Based BAT Limitations

After evaluating the factors specified in CWA section 304(b)(2)(B), EPA is proposing to find that no single technology is technologically available and economically achievable on a nationwide basis for control of pollutants in legacy wastewater. Because of process changes happening at plants in the form of ongoing and soon-to-be-completed rapid surface impoundment closures under the CCR rule, EPA proposes that a nationwide BAT limitation for legacy wastewater that would be finalized mid-closure could be infeasible. The statute requires BAT to reflect what is technologically available, is economically achievable,

[87] Three panels in the 2022 World of Coal Ash conference included discharges through groundwater as a topic in their abstracts, and one abstract stated that surface impoundments are located so close to surface waters that the groundwater underlying the surface impoundment ''is often in hydraulic communication with surface water.'' DeJournett et al., 2022. Available online at: *www.woca2022.conferencespot.org/event-data/pdf/catalyst_activity_28060/catalyst_activity_paper_20220124235416545_8aa3636e_85c7_4a17_bcca_a3119e01a5f9.*

and has acceptable non-water quality environmental impacts based on consideration of several factors, including ''process changes'' and ''such other factors'' as the Administrator deems appropriate. Because many facilities with surface impoundments are or will be in the process of closing their surface impoundments under the CCR rule, the technology that represents BAT for legacy wastewater treatment is likely to vary at any given site depending on several factors. These factors include, but are not limited to, the types of wastes and wastewaters present, the characteristics of the legacy wastewater in each layer of a surface impoundment, the amount of legacy wastewater remaining to be treated in a surface impoundment, the treatment option costs, the extent to which CWA requirements could interfere with closure timeframes required under the CCR rule, and the potential for increased discharges through groundwater. While there is no typical site given the dynamic and changing nature of this wastestream at this time, given the CCR rule's closure requirements, permitting authorities should seriously consider treatment beyond that afforded by surface impoundments, which the Fifth Circuit found to be arbitrary, capricious, and inconsistent with the ''technology-forcing mandate of the CWA.'' *Southwestern Elec. Power Company* v. *EPA,* 920 F.3d at 1017. The effect of finalizing this proposal would be for permitting authorities to continue to establish site-specific technology-based effluent limitations using their BPJ. Because the limitations would be derived on a site-specific basis, taking into account the requisite statutory factors and applying them to the circumstances of a given plant, EPA proposes that these case-by-case limitations would be technologically available and economically achievable and have acceptable non-water quality environmental impacts.

As part of this proposal, EPA is proposing to segregate legacy wastewater into two main categories of separately regulated discharges, which would each be subject to separate case-by-case technology-based effluent limitations established by the permitting authority (after considering the statutory factors). Legacy wastewater was defined in the 2015 rule preamble as:

''. . . FGD wastewater, fly ash transport water, bottom ash transport water, FGMC wastewater, or gasification wastewater generated prior to the date determined by the permitting authority that is as soon as possible . . .'' [88]

In practice, there are two distinct categories of legacy wastewater: (1) wastewater that is continuously or intermittently generated and discharged to a pond after the issuance of the first permit implementing the 2015 or 2020 rule but before the compliance date specified in the permit (the ''as soon as possible'' date required by the rule), and (2) wastewater that was discharged to the pond previously and will be discharged when the pond is dewatered for closure.

By segregating wastewaters continuously or intermittently generated and discharged after permit issuance from those already accumulated in closing surface impoundments, permitting authorities could justify more stringent BAT requirements on a BPJ basis for one or both categories of legacy wastewater. The first category is continuously or intermittently generated and discharged and may be able to be more easily transmitted to other treatment systems at the facility. The second type is typically treated with modular, leased systems for a shorter period, making treatment more affordable.

For example, regarding FGD wastewater generated after permit issuance but before the ''as soon as possible'' date determined by the permitting authority, a facility installing the 2020 BAT technology basis of chemical precipitation plus biological treatment and ultrafiltration may be able to operate the chemical precipitation module before the date the permitting authority determines is the soonest date that the more stringent limitations apply pursuant to § 423.11(t). In such a scenario, it would be reasonable for a permitting authority to establish BAT limitations for legacy FGD wastewater using a BPJ approach that would transfer mercury and arsenic limitations with a date corresponding to the operability of that chemical precipitation module. Since permitting authorities already determine the ''as soon as possible'' date, it is reasonable that the same information could be used for a BPJ analysis.

The state of Pennsylvania recently implemented a similar approach in an NPDES permit issued to Homer City. In the Homer City *NPDES Permit Fact Sheet Addendum 3,*[89] the state found the plant had ''voluntarily committed'' to a more stringent technology than BAT. The state further found that the plant needed time ''to plan, design, procure, and install equipment'' that would ''bring about a result that is more desirable under the Clean Water Act than a treated discharge—the elimination of a discharge.'' While the permit limits for this legacy wastewater were not as stringent as the 2020 rule FGD wastewater BAT limitations, the state permit required the discharger to meet interim effluent limits based on a chemical precipitation and aerobic biological treatment system that was available to this facility but may not be to other facilities, as the facility already had this technology in place before the completion of upgrades to achieve zero discharge.

The second category of legacy wastewater is wastewater accumulated over years in a surface impoundment that is later drained during the closure of that surface impoundment. Such wastewater consists of:

- surficial water located above the CCR solids (hereafter referred to as ''surface impoundment (SI) decant wastewater''); and
- pore water in the saturated CCR layer at levels beyond that needed for conditioning (hereafter referred to as ''surface impoundment (SI) dewatering wastewater'')

EPA also notes that there would necessarily be an interstitial zone where there may be some disturbed CCR solids. In this case, the water may not necessarily be pore water from CCR solids but would sufficiently mix with the CCR solids such that it presents similarly elevated pollutant concentrations. Hence, while it is not pore water per se, this interstitial zone water should be similarly situated with the pore water layer from a regulatory perspective. For this reason, EPA is proposing, and soliciting comment on, the following set of definitions and proposing to require a separate BAT/BPJ analysis for this category of legacy wastewater:

- The term ''surface impoundment'' means a natural topographic depression, man-made excavation, or diked area that is designed to hold an accumulation of coal combustion residuals and liquids, and the unit treats, stores, or disposes of coal combustion residuals.[90]
- The term ''surface impoundment decant wastewater'' means the layer of

[88] 80 FR 67854. CRL does not appear in this list because, in 2015, EPA did not establish more stringent limitations for this wastewater than the previously applicable BPT limitations.

[89] Available online at: *www.files.dep.state.pa.us/water/wastewater%20management/EDMRPortalFiles/Permits/PA0005037_FACT_SHEET_20210819_DRAFT_V2.pdf.*

[90] EPA has always sought to harmonize the CCR rule and this ELG. Therefore, this definition, and terms therein (*e.g.,* unit), was taken from 40 CFR 257.53 to match the definition under the CCR rule.

a closing surface impoundment's wastewater that is located from the water surface down to the level sufficiently above any coal combustion residuals that, when drained, does not resuspend the coal combustion residuals.

• The term ''surface impoundment dewatering wastewater'' means the layer of a closing surface impoundment's wastewater that is located below surface impoundment decant water due to its contact with either stationary or resuspended coal combustion residuals.

EPA also proposes a clarifying change to the definition of ''tank'' to ensure that there would be no structure that would qualify as both a tank and a surface impoundment. By separating these legacy wastewaters as distinct wastestreams from the legacy wastewater definition discussed above, EPA is proposing that the treatment of SI decant and dewatering wastewaters can, and in many cases should, be subject to different limitations from the first category of continuously or intermittently generated and discharged legacy wastewater. For example, a permitting authority conducting a BPJ analysis for a plant with the first type of legacy wastewater discussed above (*e.g.,* a continuously or intermittently discharged FGD wastewater) may determine that BAT limitations based on chemical precipitation are appropriate for the plant's legacy FGD wastewater discharged before its ''as soon as possible'' date, and that BAT limitations based on chemical precipitation plus biological treatment are appropriate thereafter. At the same time, the same plant may have the second type of legacy wastewater—SI decant and/or dewatering wastewater. For example, the plant may be dewatering one or more surface impoundments with historically generated FA and BA transport water, which the permitting authority could determine should be subject to different BAT effluent limitations after performing a BPJ analysis. These limitations could be more or less stringent than the FGD-specific chemical precipitation limitations derived for discharges before the ''as soon as possible'' date.

Factors the permitting authority must consider when establishing BPJ-based BAT effluent limitations for these two types of legacy wastewater are specified in section 304(b) of the CWA, 33 U.S.C. 1314(b), and 40 CFR 125.3(d). EPA solicits comment on whether the Agency should explicitly promulgate specific elements related to these factors, which are particular to this wastewater in this industry, in regulatory text. For example, such specific elements could include: (1) technologies available at the site, (2) the characteristics of the legacy wastewater, (3) amount of remaining legacy wastewater, (4) the treatment option costs, (5) the extent to which CWA requirements would interfere with surface impoundment closure required under the CCR rule, (6) the completed stage of closure for each surface impoundment, or (7) the closure deadline under the CCR rule.

EPA notes that some permitting authorities have actively sought to regulate these SI decant and dewatering wastewaters (typically through water quality-based effluent limitations). For example, the state of North Carolina considered SI decant and dewatering wastewaters in issuing several permits to Duke Energy. These permits generally limited SI decant wastewater to a maximum elevation change (*e.g.,* one foot per day), applied controls to stop decanting if TSS or dissolved pollutants exceeded some fraction of the discharge limitations (*e.g.,* 50 percent of TSS, 85 percent of arsenic), and would not drop the water level below some threshold (*e.g.,* three feet above the CCRs).[91] These performance restrictions were also paired with monitoring and reporting requirements. EPA discussed these permits with North Carolina regulators who found that this set of restrictions in the uppermost layer (*i.e.,* SI decant water) have been sufficient to protect receiving water quality.[92] EPA also notes that this approach is consistent with the approach EPRI presents in section 4 of *Coal Combustion Residuals Pond Closure: Guidance for Dewatering and Capping.*[93] These same North Carolina permits place water quality-based effluent limitations on several pollutants that apply once the lower water levels (*i.e.,* SI dewatering wastewater) are reached. These pollutants differ for each permit, but generally have led to the inclusion of physical settling, chemical precipitation, and (for at least one facility) ZVI treatment [94] to remove TSS, metals, and selenium/nutrients, respectively. This makes these systems a potential basis for BAT for the newly defined SI decant and dewatering wastewaters. In response to a voluntary information request from EPA, Duke Energy declined to provide additional data on these systems.[95] EPA solicits comment on the costs and performance of all the systems discussed above and whether any of these systems could be used as a basis for a nationwide BAT limitations for SI decant and dewatering wastewaters.

EPA also learned that Minnesota Power has commissioned an SDE for its Boswell Energy Center.[96] On October 4, 2020, the plant also provided a notice of intent to close its unit 4 surface impoundment under the CCR rule.[97] EPA has learned that the SDE is currently used to evaporate SI decant and dewatering wastewater as part of its closure process. Once this impoundment is drained, the SDE will treat FGD blowdown and other plant wastewater such as bottom ash blowdown, pond water, and cooling tower blowdown. EPA solicits comment on this system's use, as well as cost and performance data related to this system. EPA solicits comment on whether an SDE might serve as a technology basis for BAT for SI decant and dewatering wastewaters.

While there may be technologies in use to treat these wastewaters, EPA notes that the vast majority of SI decant and dewatering wastewater is likely to have already been discharged pursuant to BPJ determinations under existing permits rather than in any new permits implementing any finalized ELG revisions. Rapid closure of many of these surface impoundments is ongoing under the CCR rule. EPA notes that the vast majority of surface impoundments had to cease receipt of waste by April 11, 2021, and commence closure soon after. These surface impoundments were either unlined and leaking, in violation of location restrictions, or both. Thus, the vast majority of surface impoundments have already begun the closure process, of which dewatering is one of the first steps. Since closure must be completed within five years, subject to limited extensions,[98] most surface impoundments potentially discharging SI decant and dewatering wastewater to comply with the CCR rule will no longer

[91] Requirements differ by permit. Permits are available online at: *www.deq.nc.gov/about/divisions/water-resources/duke-energy-npdes-wastewater-permitting.*

[92] Notes from Meeting with NC DEQ—December 13, 2021 (SE10258).

[93] EPRI (Electric Power Research Institute). 2014. *Coal Combustion Residuals Pond Closure: Guidance for Dewatering and Capping.* Palo Alto, CA. 3002001117. March.

[94] Duke Energy Site Visit Notes—November 2021 (SE10259).

[95] Although Duke declined to provide this information on claim that it was proprietary information of the vendors, EPA has already discussed some of these systems with the vendors and notes that the Agency can protect proprietary information as CBI.

[96] SE10376.

[97] This filing is available online at: *www.mp-ccr.azurewebsites.net/Content/Facilities/Boswell/Closure_And_Post_Closure/BEC%20Pond%204%20Notice%20of%20Intent%20to%20Close.pdf.*

[98] *See* 40 CFR 257.102(f).

be discharging by 2026. As is the case for all promulgated effluent limitations guidelines, the requirements for direct dischargers [99] do not become applicable to a given discharger until they are contained in revised NPDES permits. NPDES permits are typically issued for the maximum allowed five-year permit term. Most permits are not immediately revised after EPA issues a new ELG rule. Moreover, it is not uncommon for permits to be administratively continued beyond the five-year permit term if a permittee submits a timely permit renewal application, in which case the existing permit stays in effect until a new permit is effective. EPA expects to issue the final rule in 2024. Thus, even if these new ELG requirements were implemented into NPDES permits in a timely manner, the vast majority of SI decant and dewatering wastewater would have been discharged pursuant to BPJ determinations in existing permits rather than pursuant to any regulations EPA might promulgate.

EPA proposes that a BPJ approach for permitting legacy wastewater would result in reasonable further progress toward the CWA's goal of eliminating the discharge of all pollutants because it would allow permitting authorities to impose more stringent limitations (including potentially zero-discharge limitations) based on technologies that remove more pollutants than surface impoundments on a case-by-case basis, depending on what is technologically available and economically achievable for individual facilities.

EPA solicits comment on the proposed approach of continuing the current practice of case-by-case BPJ for determining BAT for legacy wastewater. EPA also solicits comment on explicitly establishing BAT equal to BPJ in the text of the regulations in a manner consistent with CWA section 304(b)(2)(B), 33 U.S.C. 1314(b)(2)(B) and 40 CFR 125.3(d).

b. B. Less Stringent Technologies Than BPJ

EPA is not proposing surface impoundments as the BAT basis for control of legacy wastewater discharges because there are technologies more stringent than surface impoundments that could be used at some plants. Thus, to make reasonable further progress as required by the CWA, EPA is proposing a case-by-case BAT approach rather than defaulting to the BPT technology basis for the wastestreams implicated here. This is in keeping with the Fifth Circuit's order vacating the 2015 legacy wastewater BAT limitations, which were set equal to previously established BPT limitations based on surface impoundments, in *Southwestern Elec. Power Co.* v. *EPA,* 920 F.3d at 1018.

c. C. More Stringent Technologies and Solicitation of Comments on Potentially Different Limitations for a Subset of Legacy Wastewater

EPA is not proposing more stringent technologies, such as chemical precipitation, biological treatment, membrane filtration, thermal evaporation, and/or spray dryer evaporation as the BAT basis for controlling discharges of legacy wastewater. EPA is not certain that these systems can be used nationwide on the vast array of legacy wastewaters that exist at steam electric plants without disrupting some plants' already commenced (and contracted for) closure process, thereby possibly jeopardizing the ability of those plants to meet their closure deadlines under the CCR rule. However, EPA is soliciting comment on limitations based on chemical precipitation, biological treatment, membrane filtration, thermal evaporation, and/or spray dryer evaporation or any other more stringent technologies that plants may be using to dewater their surface impoundments. EPA is especially interested in information related to the technological availability, economic achievability, and non-water quality environmental impacts of such technologies. Since these wastewaters are the same wastewaters as those regulated elsewhere in Part 423, EPA solicits comment on whether the Agency could transfer limitations, specifically any of the 2015 or 2020 limitations for FGD wastewater (including subcategories or VIP) or the proposed zero-discharge limitations.

Finally, EPA solicits comment on whether any presumptive standard or other appropriate constraint should be placed on any BPJ analysis should the Agency finalize a case-by-case BPJ approach. Even if EPA's final rule adopts a BPJ standard for deriving BAT limitations for legacy wastewater, recognizing that the wastewater contained in surface impoundments can vary across sites in the country, EPA could expect permitting authorities to thoroughly assess the technologies a plant already uses (including for treatment of other wastewaters) to determine whether the legacy wastewater could be directed to those systems for treatment. This would presumably represent an acceptable application of BPJ at the plant. For example, if a facility has installed and already uses an SDE to treat its FGD wastewater, then it would be reasonable for the permitting authority to find such technology to be technologically available and economically achievable to treat legacy wastewater that exists in a surface impoundment designed to store legacy FGD wastewater.

In contrast to most surface impoundments, EPA has identified 22 surface impoundments at 17 facilities that the record indicates are composite lined and meet the location restrictions of the CCR rule. A further discussion of these surface impoundments can be found in *Legacy Wastewater at CCR Surface Impoundments* (SE10252). Since these surface impoundments continue to operate, they would likely not begin closure and dewatering until after the effective date of any final rule. Thus, these surface impoundments do not present the same issue as the surface impoundments which have commenced, or imminently will commence, closure. A further discussion of these surface impoundments and the corresponding costs and pollutant loadings associated with candidate technologies for a potential BAT basis can be found in *Legacy Wastewater at CCR Surface Impoundments* (SE10252). EPA solicits comment on whether the Agency should establish a subcategory or different limitations applicable to discharges of these wastewaters. EPA solicits comment on what the subcategory could look like, including what cutoff could be used to establish this subcategory, as well as whether the subcategory should apply to surface impoundments that have not triggered the cease receipt of waste and/or closure requirements of the CCR rule, to surface impoundments that have not yet begun the dewatering process, and to just the SI dewatering water where decanting has already begun or completed. Finally, EPA is currently developing a proposed CCR rule for legacy surface impoundments at inactive or retired power plants. EPA solicits comment on the universe of potential legacy surface impoundments under that rule that may become subject to any limitations established under a final ELG.

5. Clarification on the Interpretation of 40 CFR 423.10 (Applicability) With Respect to Inactive/Retired Power Plants and Solicitation of Comments on Potential Clarifying Changes to Regulatory Text

EPA is clarifying that part 423 applies to discharges of the proposed SI decant

[99] Indirect dischargers (those who discharge to POTWs) are subject to pretreatment standards that are directly implemented and enforceable. CWA section 307; 40 CFR part 403.

and dewatering wastewaters at inactive/retired power plants because the discharge of these wastewaters ''result[s] from the operation of a generating unit.'' [100] Due to the potential expansion of the CCR rule closure requirements to cover inactive surface impoundments at inactive (*i.e.,* retired) plants, these surface impoundments will likely need to dewater and discharge legacy wastewater, specifically SI decant and dewatering wastewaters. Thus, EPA wishes to clarify the applicability of these proposed regulations at inactive/retired power plants.

On August 21, 2018, the U.S. Court of Appeals for the District of Columbia issued a decision in *Utility Solid Waste Activities Group, et al.* v. *EPA,* which vacated and remanded the CCR rule provision that exempted inactive impoundments at inactive facilities from the CCR rule requirements. As a first step to respond to the Court's order, EPA sought comments and data on inactive surface impoundments at inactive facilities in an advanced notice of proposed rulemaking (ANPRM) to help develop future regulations for these CCR units (85 FR 65015, October 14, 2020). This ANPRM also discussed the related research conducted to date, described EPA's preliminary analysis of that research, and sought additional data and public input on issues that may inform a future proposed rule.

As a result of the ANPRM, EPA's understanding of the potential universe of legacy surface impoundments has grown. Specifically, comments by Earthjustice *et al.* identified an estimated 170 surface impoundments and 47 landfills at 72 retired power plants in *Potential CCR Legacy Units (2021).*[101] EPA is currently evaluating this information, as well as comments submitted by states, local governments, environmental groups, tribes, and industry, as part of *Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals From Electric Utilities; Legacy Surface Impoundments* (RIN: 2050–AH14).[102] EPA notes that many of these 72 facilities were still operating for some or all of the period during which EPA performed its detailed study for the steam electric power generating industry, 2013 proposal, and 2015 final rule. The record includes no information that these wastewaters have changed during closure such that there is any difference between the types of wastes and wastewaters in these units as compared to units at active power plants.

EPA wishes to clarify the applicability of 40 CFR part 423 to inactive/retired plants because some may question whether the existing effluent guidelines apply to discharges from surface impoundments at inactive/retired plants. Because the existing requirements under the ELGs for legacy wastewater were based on the pollutant removals achieved by surface impoundments (*i.e.,* gravity settling), whether the rule applied or not did not make a practical difference in terms of the technology-based limitations for this wastewater. Should EPA finalize limitations for SI decant and dewatering wastewater at inactive/retired plants that are more stringent than those based on the treatment achieved by surface impoundments, it is important that permittees with the estimated 170 legacy surface impoundments at inactive/retired power plants understand EPA's interpretation of the rule's applicability.

EPA notes that the current applicability text in § 423.10 conditions applicability on whether a discharge is ''resulting from the operation of a generating unit.'' Generally, when a plant ceases electricity production and retires, it either turns off, removes, or demolishes wastewater equipment such as intakes, cooling towers, pumps, and other equipment related to power generation. Thus, EPA expects that most wastewaters would no longer be generated and, therefore, no longer discharged. In contrast, some wastewaters, such as stormwater, will clearly continue to be generated and discharged after retirement, but cannot be said to result from the operation of an EGU. Between these two groupings of wastewaters lay wastewaters that, but for the operation of the generating unit, would not have been generated and discharged. Specifically, the proposed SI decant and dewatering wastewaters (legacy wastewaters) can be generated years in advance and retained in surface impoundments, either at the surface of the unit or in its pore water.

The interpretation above is consistent with EPA's long-time view on the applicability of part 423 to inactive/retired plants and consistent with implementation by state permitting authorities. For example, in 2016, South Carolina DHEC reissued a permit to the South Carolina Electricity & Gas Company's Canadys Station Site (SC0002020) which stated, ''Because electricity is not being generated, 40 CFR part 423—Steam Electric Power Generating Point-Source Category will only apply to the discharge of legacy wastewaters.'' [103]

In summary, EPA interprets the rule to apply to legacy wastewater at inactive/retired steam electric power plants. EPA solicits comment on whether § 423.10 should be amended to further support such a clarification with respect to legacy wastewater or whether the existing regulatory text already sufficiently supports this interpretation. In particular, the current applicability provision means that discharges of legacy wastewater that occur after the unit has ceased generating still ''result from'' the operation of the generating unit because *but for* the operation of the generating unit, there would be no subsequent discharge.

EPA solicits comment on whether there are other wastewaters that may continue to be discharged after the retirement of a facility and the generation of electricity is the ''but for'' cause of the discharge. EPA solicits comment on whether the Agency should clarify its interpretation for any such wastewaters or modify the text of section 423.10 to further clarify applicability to these wastewaters. For example, EPA solicits comment on whether CRL generated after retirement should continue to remain subject to 40 CFR part 423. Finally, EPA solicits comment on whether there are wastewaters at retired power plants that the Agency should clarify are explicitly excluded from the applicability of 40 CFR part 423.

C. Proposed Changes to Subcategories

In the 2015 rule, EPA established subcategories for small EGUs (less than or equal to 50 MW nameplate capacity) and oil-fired EGUs. In the 2020 rule, EPA established additional subcategories for high FGD flow facilities, LUEGUs, and EGUs permanently ceasing coal combustion

[100] 40 CFR 423.10 Applicability. The provisions of this part apply to discharges resulting from the operation of a generating unit by an establishment whose generation of electricity is the predominant source of revenue or principal reason for operation, and whose generation of electricity results primarily from a process utilizing fossil-type fuel (coal, oil, or gas), fuel derived from fossil fuel (*e.g.,* petroleum coke, synthesis gas), or nuclear fuel in conjunction with a thermal cycle employing the steam water system as the thermodynamic medium. This part applies to discharges associated with both the combustion turbine and steam turbine portions of a combined cycle generating unit.

[101] Available online at: *www.regulations.gov/comment/EPA-HQ-OLEM-2020-0107-0073.*

[102] EPA is currently evaluating potential legacy surface impoundments and intends to include a more refined estimate in its upcoming proposal.

[103] DHEC (Department of Health and Environmental Control). 2016. *FACT SHEET AND PERMIT RATIONALE: South Carolina Electric & Gas Company, Canadys Station Site.* NPDES Permit No. SC0002020. May 16.

by 2028. For these subcategorized units, EPA established differentiated limitations with different technology bases from the remaining steam electric point source category. EPA has authority in a national rulemaking to establish different limitations for different plants after considering the statutory factors listed in section 304(b). *See Texas Oil & Gas Ass'n* v. *EPA,* 161 F.3d 923, 938 (5th Cir. 1998) (stating that the CWA does not ''exclude a rule allowing less than perfect uniformity within a category or subcategory.'').

EPA is not proposing to eliminate the 2015 rule subcategorization of small EGUs or oil-fired EGUs. Furthermore, while the Agency is soliciting comment on the permanent cessation of coal combustion subcategory, it is also not proposing to eliminate this 2020 rule subcategorization. However, EPA is proposing to remove both the high FGD flow and low utilization 2020 rule subcategories. EPA is also proposing a new subcategory for early adopters which permanently cease coal combustion by December 31, 2032. These subcategories are discussed below.

1. Plants With High FGD Flows

EPA is proposing to eliminate the high FGD flow subcategory. EPA proposes that, after evaluating the factors specified in CWA section 304(b)(2)(B), the subcategory is no longer warranted. In the 2020 rule, EPA evaluated one facility, TVA Cumberland, when it established the high FGD flow subcategory. At the time, this facility was found to have the highest costs due to its high FGD flows. Several commenters on the 2019 proposal claimed that this subcategory of one facility was inconsistent with the CWA, and further contested that the costs estimated for TVA were overestimated and not disparate.[104] EPA acknowledges that its cost estimates were higher than TVA's own estimates for installing biological treatment, and thus costs may not be as disparate as indicated in the 2020 rule. Nevertheless, EPA need not reach a determination on these costs as TVA has since issued a **Federal Register** notice for plans to retire the facility, which are further detailed in a draft Environmental Impact Statement (EIS) (86 FR 25933. May 11, 2021). This draft EIS solicits comment on three alternatives, all of which include retirement but with different electricity replacement scenarios.

EPA bases this proposal principally on TVA's primary decision to permanently cease coal combustion at the Cumberland plant. Because all the alternatives TVA is considering (including its preferred alternative) would result in the plant's retirement, EPA proposes to eliminate the 2020 rule high FGD flow subcategory as unnecessary. EPA solicits comment on the 2020 basis of disparate costs used to subcategorize this facility in the first place. Since this subcategory consists of only mercury and arsenic limitations based on chemical precipitation, EPA also solicits comment on whether, should TVA step back from its retirement plans, elimination of the subcategory would still be warranted.

2. Low Utilization EGUs (LUEGUs)

EPA proposes to eliminate the low utilization subcategory after evaluating the factors specified in CWA section 304(b)(2)(B) and based on EPA's proposed finding that the subcategory is no longer warranted. EPA proposes that the low utilization subcategory is no longer warranted given that only one plant has expressed an interest in availing itself of the BAT limitations in the subcategory, and the concerns EPA originally sought to address by creating the subcategory are not present for that plant. EPA established the subcategory for LUEGUs in the 2020 rule based on cost (disparate capital costs), non-water quality environmental impacts (including energy requirements), and other factors the Administrator deemed appropriate (*i.e.,* harmonization with CAA and RCRA regulations that apply to electric utilities). Any facility seeking subcategorization of one or more EGUs as an LUEGU was required to submit a NOPP to the permitting authority by October 13, 2021. While EPA did not perform a comprehensive search for NOPPs, EPA's large collection of NOPPs across several states (described above in Section VI.B of this preamble) only included one submission for participation in the LUEGU subcategory from a direct discharger. This submission was for EGUs at the GSP Merrimack Station in Bow, New Hampshire. This plant is discussed below.

Merrimack Station has two EGUs (MK1 and MK2). Although these units were once baseload generating units, over approximately the last 10 years, these units have transitioned to only operating intermittently when needed, primarily during winter and (even less frequently) summer months when natural gas supplies are constrained. As provided in Merrimack Station's 2021 NOPP, MK1 has a nameplate capacity of 113.6 MW and in 2019 and 2020 had capacity utilization factors (CUFs) of 6.6 percent and 3.6 percent, respectively. MK2 has a nameplate capacity of 345.6 MW and had 2019 and 2020 CUFs of 7.8 percent and three percent, respectively.

Following Merrimack Station's request for permit modification to incorporate the 2020 steam electric ELGs for both its BA transport water and FGD wastewater, the facility submitted a timely NOPP. In its NOPP, the facility requested coverage under the low utilization subcategory for both wastestreams, as well as the ability to transition to the 2020 rule subcategory for permanent cessation of coal combustion by 2028 or the 2020 rule VIP for its FGD wastewater, pursuant to 40 CFR 423.13(o). EPA acknowledges the facility's request to participate in the low utilization subcategory but to have the flexibility to potentially shift to operate under another subcategory or the VIP, as allowed by the 2020 rule.

However, EPA does not think the subcategory is warranted for this plant because the facility has already installed an advanced FGD wastewater treatment system capable of meeting the limitations in this proposed rule, and thus is not expected to incur any capital costs, let alone disparate costs, to meet the proposed FGD wastewater limitations. Moreover, the facility operates in a capacity futures market that helps offset the financial challenges potentially faced by a facility that operates at a reduced capacity. Because the cost/financial concerns EPA discussed in the 2020 rule are not present for this facility, EPA also proposes to find that there are no grid reliability concerns with eliminating this subcategory.

After an initial startup period,[105] Merrimack Station has operated since 2012 with zero discharges of its FGD wastewater. To operate with zero discharge, the plant has both a primary and secondary wastewater treatment system. The primary system consists of equalization tanks, reaction tanks, a softener, gravity filters, an enhanced mercury and arsenic removal system, and a holding tank. The secondary wastewater treatment system, referred to by the facility as the vapor compression evaporation system, generally consists of a brine concentrator, two crystallizers, and a belt filter press. Although the plant has operated with

[104] EPA notes that these commenters were also petitioners in the consolidated *Appalachian Voices* case discussed in Section IV of this preamble above.

[105] The wet scrubbers became operational on September 28, 2011. For approximately two years, while the treatment system was being adjusted and optimized, wastewater was periodically hauled off-site to local POTWs for disposal.

zero discharge, in its most recent permit application, the plant at one point requested authorization to discharge FGD wastewater, but later withdrew the request. While technically the anti-backsliding provisions of 40 CFR 122.44(l) do not apply to Merrimack's FGD wastewater (since it has never had a limitation in its permit), the current permit does not allow FGD wastewater discharges and thus the permit would effectively become less stringent through the application of the low utilization subcategory, which would allow such discharges. Where a technology has already been in use at a facility for a decade and has been shown to be available and economically achievable for that facility, with acceptable non-water quality environmental impacts, relaxing a permit so use of that technology can be discontinued is inconsistent with the statute's BAT provisions intended to make reasonable further progress toward eliminating discharges into U.S. waters.[106]

Furthermore, Merrimack Station receives a production-independent revenue stream in the form of payments from the Independent System Operator (ISO) New England region's capacity futures markets. These competitive markets were designed to ensure sufficient capacity and reliability for the New England grid as described by ISO New England:

> The Forward Capacity Market (FCM) ensures that the New England power system will have sufficient resources to meet the future demand for electricity. Forward Capacity Auctions (FCAs) are held annually, three years in advance of the operating period. Resources compete in the auctions to obtain a commitment to supply capacity in exchange for a market-priced capacity payment. These payments help support the development of new resources. Capacity payments also help retain existing resources. For example, they incentivize investment in technology or practices that help ensure strong performance. They also serve as a stable revenue stream for resources that help meet peak demand but don't run often the rest of the year.[107]

In 2019, an independent estimate suggested that, between 2018 and 2023, Merrimack Station would receive approximately $189 million in these capacity market payments.[108] Thus, the plant is in a different financial situation than the other plants discussed in the 2020 rule record, which EPA was concerned would be forced to prematurely retire due to costs associated with the rule and reduced utilization and which, as a result, would potentially impact grid reliability. Furthermore, the fact that several of the plants that EPA estimated would participate in the low utilization subcategory in the 2020 rule record have since retired despite the flexibility of the subcategory and without causing grid reliability problems suggests that EPA may have overestimated both the financial viability of these plants and the threat of reliability issues. Since Merrimack Station also requested the ability to transfer to limitations for the permanent cessation of coal combustion subcategory for its discharges of both FGD wastewater and BA transport water, it is also possible that regardless of any flexibilities EPA affords, the plant is headed toward retirement. EPA notes that the ISO New England's last two Forward Capacity Auctions show a downward trend of reduced capacity commitments for Merrimack Station.

With respect to BA transport water, Merrimack Station does not have a dry handling or high recycle rate system. The plant has an unlined boiler slag pond that is also used to accept other wastestreams from around the plant. The utility represented to EPA Region 1 permitting staff that this surface impoundment was not subject to the CCR rule. EPA plans to further evaluate this issue, but for purposes of estimating costs for this rule, EPA is currently relying on the facility's representation and has included costs of BA conversion in its analysis. Working with EPA Region 1 permitting staff, Merrimack Station previously represented that it could achieve zero discharge through construction of a new remote MDS system by 2022.[109] Furthermore, this system was estimated to cost $14.9 million at most.[110] Given the timing of this proposal, Merrimack Station's representations about what date it could achieve zero discharge and cost of the relevant BA system are no longer accurate. EPA now conservatively estimates the raw capital costs of a closed-loop system to be over $26 million. Of this, approximately $22 million would be for the installation of a remote MDS and associated equipment, while approximately $4 million would be capital costs to achieve complete recycle. As discussed in Section VII.B.2 of this preamble, the over $4 million in capital costs to close the loop may be unnecessary or overstated, and EPA has incorporated these cost estimates into its consideration of cost and economic achievability for BA transport water BAT limitations.

After considering the record discussed above, EPA proposes to remove the 2020 rule low utilization subcategory. The record now indicates that there has been only one facility seeking to avail itself of low utilization discharge limitations for FGD wastewater, and that single facility already has zero discharge treatment equipment in place. Thus, it is not appropriate to continue the subcategory for this wastewater, as there are no disparate capital costs, no unacceptable non-water quality environmental impacts (including potential grid reliability impacts), and no need to allow this facility to otherwise discontinue use of its very efficient pollution treatment equipment to ''harmonize'' with other regulations. EPA solicits comment on whether any additional facilities with FGD wastewater have submitted NOPPs for the low utilization subcategory of which the Agency is not aware.

Finally, EPA does not think that Merrimack Station's costs (*e.g.,* in installing and operating a technology to meet the proposed BA transport water limitations), even if higher, warrant a special subcategory, given that this facility receives a production-independent revenue stream in the form of payments from New England's capacity futures markets. EPA is continuing to examine whether the plant's unlined slag settling pond is ''a natural topographic depression, man-made excavation, or diked area, which is designed to hold an accumulation of CCR and liquids, and the unit treats, stores, or disposes of CCR.'' [111] Should the slag settling pond meet this definition, the unlined status of this pond would mean the facility is obligated under the CCR rule to cease receipt of waste in the surface impoundment and construct an alternative BA handling system, eliminating any potentially disparate

[106] This plant is arguably one of the best performing plants in the industry with respect to its FGD wastewater, further supporting that subcategorization is not appropriate.

[107] *See www.iso-ne.com/markets-operations/markets/forward-capacity-market/.*

[108] *See www.concordmonitor.com/merrimack-station-bow-nh-28840181.*

[109] *See* January 30 email from Linda Landis, available online at: *www3.epa.gov/region1/npdes/merrimackstation/pdfs/ar/AR-1513.pdf.* After EPA announced its reconsideration of the 2015 steam electric rule in 2017, the facility announced it would halt any efforts toward achieving zero discharge of its BA transport water pending revision of the rule. *See* April 20 letter from Linda Landis, available at: *www3.epa.gov/region1/npdes/merrimackstation/pdfs/ar/AR-1362.pdf.* Ultimately, EPA issued a renewed NPDES permit for Merrimack Station in 2020 with a zero discharge BA transport water limitation to be achieved by December 31, 2023.

[110] See *www3.epa.gov/region1/npdes/merrimackstation/pdfs/final/merrimack-final-rtc-ch-5.pdf.*

[111] 40 CFR 257.53.

capital costs associated with meeting potentially more stringent BA transport water limitations. Even if the pond is not subject to the CCR rule, EPA questions whether there would be disparate costs for treating BA transport water at Merrimack Station, which receives capacity market payments designed specifically to allow the plant to stay in operation for reliability purposes, even though its operating costs may not otherwise be recouped by the plant's low sales without those payments. EPA further notes that, while courts have upheld subcategorization based on consideration of statutory factors, courts have also upheld BAT based on consideration of the point source category as a whole. *See Texas Oil & Gas Ass'n et al.* v. *EPA,* 161 F.3d 923, 928 (5th Cir. 1998) (''[I]n promulgating ELGs, EPA must set discharge limits reflecting best available technology that EPA determines to be economically feasible across the category or subcategory as a whole.'').

Finally, EPA solicits comment on the level of recycling that this plant's BA transport water system could employ, with or without additional modifications to the plant. For example, in the 2020 rule record, NRG Energy suggested that it would be able to recycle all its BA transport water from an existing surface impoundment system by merely changing the flow of existing sumps. Should comments demonstrate that Merrimack Station's two EGUs are necessary for reliability, that the slag settling pond is not a CCR surface impoundment, and that the costs for upgrading BA transport water systems are too great to bear in light of the unique circumstances above, EPA also solicits comment on whether the LUEGU subcategory should be retained only for BA transport water and/or for plants with a lower capacity utilization rate (CUR).[112] Finally, EPA solicits comment on whether future LUEGUs should be subcategorized such that they must only achieve the 2020 rule BAT limitations for FGD wastewater, which would still be less costly than the zero-discharge limitations of the current proposal.

3. EGUs Permanently Ceasing Coal Combustion by 2028

After evaluating the record, and to help establish certainty for the regulated community, EPA proposes to: maintain the subcategory for EGUs permanently ceasing coal combustion by 2028 for the reasons discussed below, modify reporting and recordkeeping requirements, clarify how limitations should be written into permits, and extend the period to file the initial notice of planned participation.

a. The Subcategory Continues To Be Warranted

EPA proposes that, after evaluating the factors specified in CWA section 304(b)(2)(B), the subcategory continues to be warranted. EPA established this subcategory in the 2020 rule based on the statutory factors of cost (the cost burden on these facilities is greater because they have less time to recoup investments); the age of the equipment and plants involved (the remaining useful life of the plants and their pollutant control equipment is shorter than for typical plants); potential non-water quality environmental impacts, including energy requirements (early retirement of these plants could affect energy supply); and harmonization with the CCR rule alternative closure provisions. EPA continues to find that these factors weigh in favor of the subcategory but solicits comment on several issues, as detailed below.

With respect to cost and age, the 2020 rule record included an analysis showing that amortization of capital costs for less than the typical 20-year life of pollution control equipment leads to disparate annualized costs until after about eight years, which at the time was 2028. Many plants made decisions at the time of the 2020 rule to opt for the alternative retirement compliance pathway, and they are now several years into meeting the milestones for that path.

Similarly, with respect to non-water quality environmental impacts, including energy requirements, a review of new information continues to support this subcategory in some instances. First, utilities have planned and budgeted for replacement capacity under timelines approved by public utility commissions (PUCs) and public service commissions (PSCs) as part of the normal integrated resource planning process. These submissions were made since the 2020 rule, as part of the 2020 rule's eight-year window to permanently cease coal combustion. EPA does not think it should disrupt these ongoing plans by changing the date. There will continue to be some plants for which replacement capacity is not an issue due to excess reserve margins, and others where replacement capacity is still necessary but changes in the power sector (including the Inflation Reduction Act) may allow for replacement capacity to be constructed more quickly. That said, EPA thinks that maintaining the same timeframe allowed by the prior rule supports efforts planned as a result of the 2020 rule and weighs in favor of retaining the same date in a revised rule.

Second, with respect to air pollution, EPA notes that several utilities have accelerated their retirement of coal-fired power plants and construction of replacement capacity. For example, the DTE filed a NOPP for this subcategory for its Belle River Power Plant and is accelerating the plant's retirement from 2030 to 2028. Replacing coal-fired capacity with natural gas, renewables, and other sources leads to decreased emissions of several air pollutants. The subcategory allows utilities already seeking to accelerate retirements to do so and achieve the associated air pollution reductions (a non-water quality environmental impact), which further supports the proposed finding that the subcategory continues to be warranted.

In addition, EPA still wishes to harmonize this rule with the CCR rule alternative closure provisions, which have not changed. Twenty-five plants are seeking to use the CCR rule's alternative closure provisions, which allow for closure of the unlined impoundment(s) and the power plant no later than 2023 (for surface impoundments under 40 acres) or 2028 (surface impoundments over 40 acres).[113] Elimination of the permanent cessation of coal combustion subcategory from this ELG could potentially interfere with the plans of utilities with surface impoundments in the 2028 category, complicating their compliance with the CCR rule. Furthermore, EPA has also solicited comment on a corresponding flexibility under the proposed Good Neighbor Plan, discussed in Section IV.E.2.a of this preamble, above.[114] Harmonization between regulations on air, water, and land pollution gives industry certainty to plan and implement these requirements in an orderly, efficient manner.

Finally, EPA notes that even if the permanent cessation of coal combustion subcategory were eliminated in a final

[112] For example, in comments provided during state and local government consultations, IMPA suggested a seven percent CUR.

[113] Further information is available online at: *www.epa.gov/coalash/coal-combustion-residuals-ccr-part-implementation.*

[114] ''To facilitate a potentially economic and environmentally superior unit-level compliance response across these programs that nonetheless maintains the NO_X reductions required by the state budgets from 2026 forward in this proposal, EPA is requesting comment on potentially deferring the application of the backstop daily rate for large coal EGUs that submit written attestation to EPA that they make an enforceable commitment to retire by no later than the end of calendar year 2028.'' 87 FR 20036, 20122 (April 6, 2022).

rule, it is unlikely to result in more stringent limitations in time to affect these plants. As discussed elsewhere in this proposal, EPA intends to issue a final rule in 2024, and the rule's requirements would not be implemented for direct dischargers until permitting authorities issue new permits incorporating those limitations. Since permits are typically not immediately reissued upon promulgation of a new rule, and the rule would likely allow some time to accomplish the new more stringent requirements as soon as possible, but not later than approximately five years after promulgation (*i.e.,* no later than December 31, 2029), it is likely that the 2028 permanent cessation of coal combustion date would have passed before a new ''no later than'' date under a new permit implementing the rule. Furthermore, in many cases, retirements and fuel conversions are planned to be completed well before 2028, with some already having occurred. After considering all the information above, EPA proposes that the consideration of the factors that led to the creation of this subcategory in the 2020 rule not only continues to weigh in favor of subcategorization but may be stronger than at the time of the 2020 rule. Thus, EPA proposes to retain this subcategory in its current form.

EPA solicits comment on the proposal to retain the subcategory. EPA also solicits comment on additional information that would suggest eliminating the subcategory, selecting a more stringent BAT for the subcategory, or specifying that BAT should be determined by the permitting authority on a case-by-case, BPJ basis. EPA explicitly solicits comment on a constrained BPJ approach whereby the permitting authority could require more stringent limitations where a facility has previously installed technologies that were designed to achieve pollutant removals beyond those achievable with surface impoundments, or alternatively, limitations based specifically on the more advanced technologies that a facility has previously installed. EPA is interested in whether these alternate approaches might better achieve the goals of the CWA, which requires reasonable further progress toward the elimination of discharges.

b. Clarification of Existing Limitations

As a clarification of how existing limitations should be written into permits, EPA also proposes to explicitly require permitting authorities to include in these sources' permits limitations requiring zero discharge of FGD wastewater and BA transport water after December 31, 2028, to ensure that permit requirements accurately reflect that no discharges of these wastewaters are allowed after the cessation of coal combustion date applicable to the subcategory. If the plant fails to cease combustion of coal by 2028 for any reason other than those specified in section 423.18, the zero-discharge limitations would automatically apply. These provisions are costless, and merely clarify the intent that plants which get the benefit of this subcategory do so because they will no longer discharge after 2028. To help ensure that facilities benefitting from less stringent requirements between the effective date of any final rule and the closure date are truly going to meet the deadline for participation in the subcategory, EPA is proposing to add this requirement.

Proposal to Extend NOPP Filing Deadline Should EPA Receive Adverse Comment and Withdraw Related Direct Final Rule. Utilities have continued to assess and consider plans for plants and EGUs as part of their normal integrated resource planning process. ''Representatives from Utilities and trade associations suggested that these continued evaluations have led additional facilities to seek accelerated retirement or fuel conversion of coal-fired power plants beyond those for which NOPPs were filed by the 2020 rule's October 13, 2021, deadline. Having not filed a NOPP by the 2021 deadline, such facilities would be forced to incur capital expenditures to install technologies to meet the 2020 rule limitations, thus receiving disparate treatment from those who filed a NOPP by October 13, 2021. EPA is proposing to change the NOPP filing date to 60 days after publication of a final rule. However, the Agency notes that following the public comment period and time to consider any comments on this issue, EPA would likely be unable to finalize a rule earlier than summer 2023, which would leave industry without certainty that plants that had not previously filed NOPPs might still be able to avail themselves of the 2020 subcategory for plants ceasing coal combustion by 2028. Given the lead times necessary to procure and install 2020 rule-compliant technologies (*e.g.,* biological treatment), the regulated community would benefit from certainty that such a provision will be finalized much sooner than summer 2023 to guarantee that unnecessary costs can still be avoided.[115] Thus, separately from this proposed rule, EPA is publishing a related direct final rule that changes the date of the NOPP filing to June 27, 2023, which will take effect on May 30, 2023 assuming EPA does not receive any adverse comments on the direct final rule. As described in the direct final rule, any adverse comment on the direct final rule must be received by April 28, 2023 if the commenter wishes to keep the direct final rule from taking effect.

While EPA is promulgating a direct final rule to extend the NOPP deadline to June 27, 2023, EPA is through this proposal also proposing to extend the NOPP deadline to 60 days after publication of a final rule. Thus, if EPA receives adverse comment on the direct final rule within 30 days of publication and subsequently withdraws that rule, the Agency still has the option of finalizing its proposal to extend the NOPP filing deadline. It is possible that EPA could take final action on this aspect of the rule prior to the rest of the proposed rule. If EPA does not receive adverse comment on the direct final rule and it takes effect, then the Agency would not plan to finalize this aspect of the proposal. In connection with the proposal to extend the NOPP filing deadline to 60 days after publication of a final rule, EPA solicits comment on briefly extending the NOPP filing deadline to allow for these additional retirements and fuel conversions to qualify for treatment under this subcategory. EPA solicits comment on specific information suggesting that specific plants or EGUs not the subject of a previously filed NOPP would consider permanently ceasing coal combustion by December 31, 2028. This could include new integrated resource plans, new retirement announcements, or other similar information. EPA solicits comment on whether a different NOPP filing deadline is appropriate and information demonstrating why. Any comments on this aspect of this proposal should clearly state that they are being made in response to the proposed extension of the NOPP filing deadline rather than on the direct final rule being published elsewhere in this issue of the **Federal Register**.

c. Additional Reporting and Recordkeeping Requirements

For a discussion of additional reporting and recordkeeping requirements, see Section XV.C.1 of this preamble.

[115] EPA notes that, given the timeframes for procurement and installation of 2020 rule-compliant technologies presented in the 2020 rule record, utilities would have to start incurring expenses around the end of the comment period of this proposal to avoid the risk of noncompliance with the 2020 rule.

4. Subcategory for Early Adopters Retiring by 2032

EPA is proposing a new subcategory for plants that have achieved compliance either with the 2015 or 2020 rule limitations on FGD wastewater and BA transport water by publication of this proposed rule, and which elect to retire no later than December 31, 2032. EPA further proposes to explicitly require, as a condition for being eligible for this subcategory, that permitting authorities include the BAT limitations (proposed here as zero discharge of FGD wastewater and BA transport water) in these sources' permits after December 31, 2032. This will ensure that permits accurately reflect that no discharges of these wastewaters are allowed after the cessation of coal combustion date applicable to the subcategory. If a plant fails to cease combustion of coal by 2032 for any reason other than those specified in section 423.18, the zero-discharge limitations would automatically apply. After evaluating the factors specified in CWA section 304(b)(2)(B), EPA proposes that such a subcategory is warranted on the basis of cost (disparate costs to facilities with these units), age (both the age of the new pollution treatment technology and the remaining useful life of the plant), non-water quality environmental impacts (air pollution), and other factors the Administrator deems appropriate (impacts to early adopters who relied on the identification of biological treatment as BAT for FGD wastewater in the 2015 and 2020 rules). For units in this subcategory, EPA proposes limitations based on the same technology bases for control of FGD wastewater and BA transport water in the 2020 rule, which EPA proposes are available, are economically achievable, and have acceptable non-water quality environmental impacts.

As discussed in Section IV of this preamble above, discharges from steam electric plants have been the subject of proposed and final regulations for the past decade, an unsurprising fact given this industry's long tenure among the top industrial point source discharges.[116] Some utilities and states pushed forward pursuant to the 2015 and 2020 rules with biological treatment and dry or closed-loop BA handling systems (even where these systems turned out to have a purge), and have achieved compliance with the limitations in those rules by the date of publication of this proposed rule. This proposal refers to those facilities as ''early adopters.'' In contrast, other utilities have avoided incurring any cost for as long as possible, and as a result may be better poised to adjust to today's more stringent proposal. Thus, EPA considered how the statutory factors may justify a balancing of these equities.

EPA gathered as much information as possible to consider when early adopter units might plan to close in order to qualify for this subcategory. With respect to disparate costs and age (remaining life of the EGU), EPA continued to gather information from publicly available sources, company announcements, industry public comments, and government databases to identify EGUs that may have already installed 2020 rule-compliant technologies. Many of these EGUs have already announced retirement by 2032 or soon thereafter.[117] EPA presents a list of such EGUs in Table VII–1 of this preamble below. As shown in the table, the record includes 15 EGUs at five plants that have already adopted technologies to comply with the 2015 or 2020 rules that may incur costs under the proposal without a subcategory for early adopters. Under Option 3, these EGUs combined have estimated capital costs of $51 million and estimated operations and maintenance (O&M) costs of $4 million per year. Under Option 4, these EGUs combined have estimated capital costs of $110 million and estimated O&M costs of $11 million per year. Thus, the costs for the rule more than double without subcategorization of these units. Furthermore, accounting for the remaining useful life of these EGUs, costs in many cases would be amortized over periods shorter than the assumed 20-year life of the equipment. As discussed in the 2020 rule record and above in the discussion for the subcategory for EGUs permanently ceasing coal combustion by 2028, amortization periods shorter than eight years may lead to disparate costs.

TABLE VII–1—EARLY ADOPTERS

Plant name	SE Unit ID	Retire year	Capacity (MW)	Option 3 costs		Option 4 costs	
				Capital (2021$)	O&M (2021$)	Capital (2021$)	O&M (2021$)
Plant James H Miller Jr	SE Unit-1	N/A	706	$0	$0	$4,700,000	$130,000
Plant James H Miller Jr	SE Unit-2	N/A	706	0	0	4,700,000	130,000
Plant James H Miller Jr	SE Unit-3	N/A	706	0	0	4,700,000	130,000
Plant James H Miller Jr	SE Unit-4	N/A	706	0	0	4,700,000	130,000
Marshall Steam Station	SE Unit-1	2028	380	2,800,000	210,000	4,900,000	540,000
Marshall Steam Station	SE Unit-2	2028	380	2,800,000	210,000	4,900,000	540,000
Marshall Steam Station	SE Unit-3	2032	658	4,900,000	370,000	9,200,000	1,100,000
Marshall Steam Station	SE Unit-4	2032	660	4,900,000	370,000	7,300,000	750,000
Mountaineer Plant	SE Unit-1	2040	1,300	7,300,000	780,000	17,000,000	2,200,000
Gallatin	SE Unit-1	2035	300	2,300,000	110,000	3,700,000	250,000
Gallatin	SE Unit-2	2035	300	2,300,000	110,000	3,700,000	250,000
Gallatin	SE Unit-3	2035	328	2,500,000	120,000	4,000,000	270,000
Gallatin	SE Unit-4	2035	328	2,500,000	120,000	4,000,000	270,000
Belews Creek Steam Station	SE Unit-1	2035	1,110	9,700,000	790,000	18,000,000	2,100,000
Belews Creek Steam Station	SE Unit-2	2035	1,110	9,700,000	790,000	19,000,000	2,300,000
Total			*9,675*	*51,000,000*	*4,000,000*	*110,000,000*	*11,000,000*

Note: Totals may not add due to rounding.

With respect to non-water quality environmental impacts, including energy requirements, a review of new information supports the creation of this subcategory. Replacement of coal-fired capacity with natural gas, renewables,

[116] *See, e.g.,* Effluent Guidelines Plan 14/ Preliminary Effluent Guidelines Plan 15, available online at: *www.epa.gov/eg/effluent-guidelines-plan.*

[117] Even the one EGU with a retirement date of 2040 (Mountaineer Unit 1) recently contemplated retirement by 2028 when both Virginia and Kentucky rejected rate recovery for ELG-compliant upgrades to AEP's coal-fired power plants.

and other sources leads to decreased emissions of several air pollutants, including GHGs. Thus, to the extent that the subcategory allows utilities already seeking to accelerate retirements in response to the Inflation Reduction Act and other factors the ability to do so and achieve the associated air pollution reductions (a non-water quality environmental impact), it further supports the proposed finding that the subcategory is warranted.

With respect to age (of pollution treatment equipment) and ''other factors'' the Administrator deems appropriate, EPA considered the impacts of expecting early adopters to meet new limitations based on technologies different than those identified as the technology bases in the 2015 and 2020 rules. As stated above, the ELGs for direct discharges are implemented in permits. Some facilities have diligently applied for and obtained permits implementing the 2015 or 2020 rules' limitations for FGD wastewater and BA transport water and installed technologies that meet those limitations. Several utilities have biological treatment that could meet the 2020 rule limitations. For example, Duke Energy made a fleetwide conversion to chemical precipitation plus biological treatment and ultrafiltration for its FGD wastewater, despite EPA's reconsideration of the 2015 rule. In part, continued investments in FGD wastewater treatment technologies by Duke and others were driven by permit limitations.[118] However, at least some of these plants relied upon EPA's continued determinations in the 2019 proposal and 2020 final rule that some form of biological treatment was still BAT for FGD wastewater. It is also worth noting that some of these utilities may not have been able to select more stringent technologies, even under the 2020 VIP, in part because PUCs/PSCs would not agree to this higher cost *unless* the more stringent limitations were legally required. Thus, several companies installed a technology unable to achieve the same zero-discharge limitations that the BAT basis proposed in Option 3 (chemical precipitation plus membrane filtration) can achieve. While some of these systems were installed over a decade ago and may have already achieved some payback, in other cases these systems are new and far from the end of their useful life. For this reason, it is appropriate for EPA to consider the additional cost associated with these early adopters having to meet a new set of limitations.

EPA notes that these same plants that have already incurred costs for FGD wastewater treatment technologies have also moved forward with converting previous surface impoundment-based BA transport water systems. These conversions often occurred due to a combination of the CCR and ELG rules. Nevertheless, in instances where a plant incurred capital costs to install a remote MDS, the plant may similarly face the task of adjusting this system to operate zero discharge for additional costs in conjunction with the costs of installing additional FGD wastewater treatment technologies. EPA notes that the costs to upgrade the BA handling system are typically relatively small, with EPA's conservative estimates of capital and O&M costs averaging approximately $4 million up front and $370,000 per year for each EGU. For this reason, EPA does not propose extending this subcategory to facilities with high recycle rate BA transport systems that have not also installed biological treatment or comparable systems for FGD wastewater.[119]

EPA solicits comment on several issues regarding this subcategory, including whether the subcategory is warranted based on the record. Many of the solicitations below are in direct response to suggestions from utilities and trade associations that were similar to, but contained differences from, the proposed subcategory. For example, EPA solicits comment on whether costs are disparate in light of the relatively higher utilization of some of these EGUs and the ability of utilities to lease the additional treatment stages necessary to meet any new limitations. EPA solicits comment on alternate cutoff dates the Agency could use for early adoption. For example, EPA could make the cutoff date earlier than publication of the proposed rule (*e.g.,* full compliance by the announcement of this rulemaking in 2021) or later (*e.g.,* any facility that had already entered into a binding contract by the signature date of the proposal).[120] EPA also solicits comment on whether early adoption should be required at all, or whether the Agency should merely include a new subcategory for retirement by 2032 rather than 2028, as discussed above. In the case of such a change, EPA solicits comment on the appropriate BAT limitations until that time. EPA also solicits comment on whether the early adopter subcategory should require a different date for the permanent cessation of coal combustion. EPA is undertaking rulemakings related to EGUs under the CAA and solicits comment on whether the permanent cessation of coal combustion date proposed here should be harmonized with any CAA rule that is ultimately promulgated. EPA solicits comment on whether the Agency should finalize an early adopter subcategory that would be available to early adopters of the 2015/2020 rule technology bases (or similar bases), whether they plan to retire by a certain date or not. Whether or not the subcategory is tied to retirement, EPA also solicits comment on whether the early adopter subcategory should be limited such that less stringent limitations based on 2015/2020 rule technologies would only be available to a plant until the capital investment of the previous technologies has been paid back. EPA solicits comment on whether, after a full payback period has passed, an early adopter should immediately be subject to any new, more stringent limitations. EPA also solicits comment on whether the Agency should allow participation in this subcategory if the plant is not retiring, but instead converting to other fuels (*e.g.,* natural gas), as was done in the 2020 rule for the EGUs permanently ceasing coal combustion by 2028 subcategory.

EPA solicits comment on whether this subcategory should be extended to facilities other than those that installed biological treatment or ZVI treatment for FGD wastewater. ZVI is an equivalent technology to biological treatment that several plants had identified could meet the limitations during the 2020 rulemaking but couldn't achieve zero discharge. Although EPA isn't aware of any completed installations of ZVI, the Agency does not wish to close the door on any facilities that had similar reliance interests but installed the competitor technology. EPA solicits comment on whether an early adopter subcategory should include facilities that have already met both the FGD wastewater and BA transport water limitations for the LUEGU or high FGD flow subcategory by any means, not by a specified treatment technology. EPA also solicits comment on whether the subcategory should include facilities that have only met the limitations for BA transport water because they have no FGD wastewater. If so, EPA solicits comment on whether it should require that early adopters for BA transport

[118] *See, e.g.,* water quality-based effluent limitations at Plant Miller (SE08188).

[119] Note that many facilities also meet existing 2020 FGD wastewater BAT limitations because they either do not generate or do not discharge FGD wastewater. This subcategory would not apply to such facilities.

[120] For an example of the latter approach, see 40 CFR 122.29(b)(4)(ii) as it relates to defining new sources.

water actually incurred capital costs to install a remote MDS system rather than merely recycling wastewater through existing systems (*e.g.,* through surface impoundments). EPA also solicits comment on whether BA transport water should be included in the subcategory at all, or alternatively whether the subcategory should apply only to early adopters of FGD wastewater technologies.

D. Additional Rationale for the Proposed PSES and PSNS

Before establishing PSES/PSNS for a pollutant, EPA examines whether the pollutant ''passes through'' a POTW to WOTUS or interferes with the POTW operation or sludge disposal practices. In determining whether a pollutant passes through POTWs for these purposes, EPA typically compares the percentage of a pollutant removed by well-operated POTWs performing secondary treatment to the percentage removed by the BAT/NSPS technology basis. A pollutant is determined to pass through POTWs when the median percentage removed nationwide by well-operated POTWs is less than the median percentage removed by the BAT/NSPS technology basis. EPA establishes pretreatment standards for those pollutants regulated under BAT/NSPS that pass through POTWs.

EPA is continuing to rely on the pass-through analysis as the basis of the limitations and standards in the 2015 rule, which found that mercury and arsenic in CRL are not significantly removed by POTWs. As in the 2015 rule, EPA also did not conduct its traditional pass-through analysis for wastestreams with proposed zero-discharge limitations or standards. Zero-discharge limitations and standards achieve 100 percent removal of pollutants; therefore, all pollutants in those wastestreams treated by the proposed zero discharge technologies would otherwise pass through the POTW absent application of those technologies.

After considering all the relevant factors and technology options presented in this preamble and in the TDD, EPA is proposing to establish PSES for indirect dischargers based on the technologies described in Option 3. EPA is proposing the Option 3 technologies as the bases for PSES for the same reasons that the Agency is proposing the Option 3 technologies as the bases for BAT for direct dischargers.[121] EPA's analysis shows that, for both direct and indirect dischargers, the Option 3 technologies are available and economically achievable, and Option 3 has acceptable non-water quality environmental impacts, including energy requirements (*see* Sections VIII and X of this preamble). For the preferred option (Option 3), EPA is not proposing other technology bases for PSES for the same reasons that the Agency is not proposing other technology bases for BAT. Furthermore, for the same reasons that apply to EPA's proposed retention of differentiated BAT limitations for EGUs permanently ceasing coal combustion by 2028 and creation of differentiated limitations for early adopters, EPA proposes the same flexibilities in PSES under Option 3.

With respect to the low utilization subcategory, EPA proposes to eliminate the PSES subcategory for LUEGUs, as it does for direct dischargers, after considering specific facts for the lone indirect discharge from a LUEGU. EPA is only aware of one indirect discharger that has filed a NOPP to avail itself of this subcategory, the Whitewater Valley Station. Whitewater Valley Station consists of two EGUs (Coal Boiler #1 and Coal Boiler #2). Coal Boiler #1 has a nameplate capacity of 35 MW and a 2019 and 2020 CUR of five percent and 3.67 percent, respectively. Coal Boiler #2 has a nameplate capacity of 65 MW and a 2019 and 2020 CUR of 5.5 percent and 5.1 percent, respectively. On the IMPA website, the Agency states that the station ''has been utilized by IMPA during peak load periods during the hot summer months and cold winter months.'' [122] EPA notes that Coal Boiler #1 need not have been included in this facility's NOPP filing as this EGU is small enough to avail itself of the 2015 rule subcategory for small EGUs (*i.e.,* less than or equal to 50 MW nameplate capacity).

Whitewater Valley Station does not generate or discharge FGD wastewater but does generate BA transport, water which it has historically discharged indirectly through a POTW. According to comments filed during consultations with state and local government entities and associations, IMPA described a treatment chain it might utilize for this subcategory:

> ''Under the existing system, LUEGUs will be able to use gravity settling in surface impoundments to remove Total Suspended Solids (TSS). Low utilization subcategory EGUs then must develop and implement a best management practice (BMP) plan to minimize the discharge of pollutants from BA transport water. As an example, an IMPA facility that plans to apply the low utilization subcategory transports its BA transport water through a settlement and filtration system that removes TSS and other contaminants before discharging to the relevant POTW for treatment.'' [123]

EPA estimated this facility would need to employ two under-boiler MDS systems because of the CCR requirement to cease receipt of waste in the facility's unlined surface impoundments. However, the comment excerpted above (received after EPA had completed its analysis) suggests that has already taken, and possibly finalized, an alternative treatment system that is not zero discharge, given the CCR rule's April 2021 cease receipt of waste deadline.

Nevertheless, EPA proposes to eliminate the LUEGU subcategory for indirect dischargers. With respect to FGD wastewater under the LUEGU subcategory, no NOPPs were filed from indirect dischargers requesting this subcategory for this wastestream. Thus, continued existence of this subcategory is unnecessary. With respect to BA transport water, EPA has not evaluated costs for Whitewater Valley Station's Coal Boiler #2 for the reasons discussed above, but again notes that no costs would be imposed for Coal Boiler #1 as it could continue to discharge under the less stringent limitations in the 2015 subcategory for small units. Given the very low utilization of the two EGUs, EPA solicits comment on whether the peaking function of Whitewater Valley Station could continue by utilizing only Coal Boiler #1 after 2028 if the facility transitioned Coal Boiler #2 into the permanent cessation of coal combustion subcategory.[124] EPA also solicits comment on the specific pollution controls in place at the Whitewater Valley Station, as well as the levels of pollution reduction that system achieves both alone and in combination with the downstream POTW via which the facility discharges its BA transport water. For PSES, EPA also solicits comment on the same issues discussed in Section VII.C.2 of this preamble for direct dischargers. Finally, EPA solicits comment on whether the LUEGU subcategory should be retained for BA transport water for indirect dischargers only.

For purposes of the proposed PSES, EPA also proposes the same definitional changes for legacy wastewater that were

[121] Since Dallman has converted to a direct discharger (SE10256), EPA projects that the proposed PSES for FGD wastewater would not apply to any plants.

[122] *See www.impa.com/about-impa/generation-resources/giant-tcr.*

[123] Available online at: *www.regulations.gov,* Document ID: EPA–HQ–OW–2009–0819–9020.

[124] Note that small EGUs are not limited to a 10 percent CUR.

proposed for BAT in Section VII.B.4 of this preamble. For the same reasons as the proposed BAT determination, EPA proposes to decline establishing a nationally applicable PSES for wastewater generated before the ''as soon as possible'' date, SI decant wastewater, and SI dewatering wastewater. The effect of not finalizing PSES for this set of wastewaters would mean that any pretreatment standards in addition to those set forth in 40 CFR part 403 would need to be established as local limits by the control authority.

E. Availability Timing of New Requirements

Where BAT limitations in the 2015 and 2020 rules are more stringent than previously established BPT limitations, those BAT limitations do not apply until a date determined by the permitting authority that is ''as soon as possible'' after considering four factors.[125] Depending on the particular wastewater, the 2015 and 2020 rules also established a ''no later than'' date of December 31, 2023, and/or December 31, 2025, for reasons discussed in the record of those rules, including that without such a date, implementation could be substantially delayed, and a firm ''no later than'' date creates a more level playing field across the industry.

As part of the consideration of the technological availability and economic achievability of the BAT limitations in this proposal, EPA considered the magnitude and complexity of process changes and new equipment installations that would be required for plants to meet the proposed rule's limitations and standards. Specifically, EPA selected the timeframes described above to enable many plants to raise needed capital, plan and design systems, procure equipment, and construct and test systems. EPA also considered the timeframes needed for appropriate consideration of any plant changes being made in response to other Agency rules affecting the steam electric power generating industry. EPA understands that some plants may have already installed, or are now installing, technologies that could comply with the proposed limitations. Therefore, EPA proposes that the earliest date some plants can achieve compliance with these new limitations would be the effective date of any final rule. Where this is not the case, nothing in this proposal would preclude a permitting authority from establishing a later date, up to the ''no later than'' date, after considering the four specific factors in 40 CFR 423.11(t).

With respect to the latest compliance dates, EPA collected updated information regarding the technical availability of the proposed technology bases. Information in EPA's rulemaking record indicates that a typical timeframe to raise capital, plan and design systems (including any necessary pilot testing), procure equipment, and construct and test systems falls well within the existing five-year permit cycle.[126] Furthermore, the chemical precipitation and zero discharge technologies proposed here do not implicate the same industrywide competition over a small number of biological treatment vendors that the 2020 rule implicated. EPA notes that while plants may not need approximately five years to comply with the proposed limitations, the ''no later than'' date creates an outer boundary beyond which no discharger may seek additional time and creates a level playing field regarding the latest date. Therefore, EPA proposes that any final limitations be achieved ''no later than'' December 31, 2029.

As with the proposed BAT effluent limitations, in considering the availability and achievability of the proposed PSES, EPA concluded that existing indirect dischargers need some time to achieve the final standards, in part to avoid forced outages. While the BAT limitations apply on a date determined by the permitting authority that is as soon as possible beginning on the effective date of any final rule (but no later than December 31, 2029), under CWA section 307(b)(1), pretreatment standards shall specify a time for compliance not to exceed three years from the date of promulgation, so EPA cannot establish a longer implementation period. Moreover, unlike requirements on direct discharges, requirements on indirect discharges are not implemented through NPDES permits. Nevertheless, EPA proposes to find that all existing indirect dischargers can meet the standards within three years of promulgation. There will be no remaining indirect dischargers of FGD wastewater by the time any final rule is promulgated. With respect to BA transport water, EPA estimates that a closed-loop system can achieve zero discharge within 35 months, and substantially sooner if a high recycle rate system is already operating.[127] Finally, with respect to CRL, EPA estimates the chemical precipitation systems can achieve the mercury and arsenic limitations within 22 months.[128] Thus, the proposed PSES technologies are available in the proposed timeframe. Further discussion of availability timing can be found in Section XV of this preamble.

F. Economic Achievability

As explained in detail in Section VIII of this preamble, below, EPA's analysis for the proposed BAT limitations and PSES demonstrates that they are economically achievable for the steam electric industry as a whole, as required by CWA section 301(b)(2)(A). EPA used IPM to perform cost and economic impact assessments, using a baseline that reflects impacts from other relevant environmental regulations (*see* RIA).[129] For the proposed rule, the model showed very small additional effects on the electricity market, on both a national and regional sub-market basis. Based on the results of these analyses, EPA estimated that the proposed rule requirements would result in a net reduction of 249 MW in steam electric generating capacity as of the model year 2030, reflecting full compliance by all plants. This capacity reduction corresponds to a net effect of approximately one EGU closure or, when aggregating to the level of steam electric generating plants, one early plant closure.[130] These IPM results support EPA's conclusion that the proposed rule is economically achievable.

G. Non-Water Quality Environmental Impacts

The proposed BAT limitations and PSES have acceptable non-water quality environmental impacts, including energy requirements. Section X of this preamble describes EPA's analysis of

[125] These factors are: (1) Time to expeditiously plan (including to raise capital), design, procure, and install equipment to comply with the requirements of the final rule; (2) changes being made or planned at the plant in response to GHG regulations for new or existing fossil fuel-fired power plants under the Clean Air Act, as well as regulations for the disposal of coal combustion residuals under subtitle D of the Resource Conservation and Recovery Act; (3) for FGD wastewater requirements only, an initial commissioning period to optimize the installed equipment; and (4) other factors as appropriate. 40 CFR 423.11(t).

[126] *See* FGD and Bottom Ash Implementation Timing (SE08480).

[127] SE08480.

[128] SE10289.

[129] IPM is a comprehensive electricity market optimization model that can evaluate such impacts within the context of regional and national electricity markets. See Section VIII of this preamble for additional discussion.

[130] Given the design of IPM, unit-level and thereby plant-level projections are presented as an indicator of overall regulatory impact rather than a precise prediction of future unit-level or plant-specific compliance actions. The projected net plant closure occurs at a plant whose only steam electric EGU had a capacity utilization of only six percent in the baseline.

non-water quality environmental impacts and energy requirements in more detail. EPA estimates that by 2029, under the proposed rule and reflecting full compliance, energy consumption would increase by less than 0.003 percent of the total electricity generated by power plants. EPA also estimates that the amount of fuel consumed by increased operation of motor vehicles (*e.g.,* for transporting waste) would increase by approximately 0.0005 percent of total fuel consumption by all motor vehicles.

EPA also evaluated the effect of the BAT effluent limitations on air emissions generated by all electric power plants (NO_X, SO_X, and CO_2), solid waste generation, and water usage. Under the proposed rule, depending on the year, CO_2 emissions are projected to decrease by 0.1 to 1.1 percent, NO_X emissions are projected to decrease by 0.6 to 2.4 percent, and SO_2 emissions are projected to decrease by 0.2 to 3.9 percent due to changes in the mix of electricity generation (*e.g.,* less electricity from coal-fired steam EGUs and more electricity from natural gas-fired steam EGUs). Moreover, solid waste generation is projected to increase by less than one percent of total solid waste generated by all electric power plants. Finally, EPA estimates that the proposed rule will have a positive impact on water withdrawal, with steam electric power plants reducing the amount of water they withdraw by 4.33 billion gallons per year (11.8 MGD).

H. Impacts on Residential Electricity Prices and Low-Income and Minority Populations

EPA examined the effects of the proposed rule on consumers as an additional factor that might be appropriate when considering what level of control represents BAT. If all annualized compliance costs were passed on to residential consumers of electricity instead of being borne by the operators and owners of power plants (a conservative assumption), the average yearly electricity bill increase for a typical household would be no more than $0.63 under the proposed rule. For further information see Chapter 7 of the RIA.

EPA also considered the effect of the proposed rule on minority and low-income populations. As explained in Section XVI of this preamble, using demographic data regarding who resides closest to steam electric power plant discharges, who fishes in downstream waterbodies, and who consumes drinking water from downstream drinking water treatment plants, EPA concluded that low-income and minority populations benefit to an even greater degree than the general population from the reductions in discharges associated with the proposed rule.

VIII. Costs, Economic Achievability, and Other Economic Impacts

EPA evaluated the costs and associated impacts of the four regulatory options on existing EGUs at steam electric plants. These costs are analyzed within the context of existing environmental regulations, market conditions, and other trends that have affected steam electric plant profitability and generation, as described in Section V.B of this preamble. This section provides an overview of the methodology EPA used to assess the costs and the economic impacts and summarizes the results of these analyses. See the RIA in the docket for additional detail.

In developing ELGs, and as required by CWA section 301(b)(2)(A), EPA evaluates the economic achievability of regulatory options to assess the impacts of applying the limitations and standards to the industry as a whole, which typically includes an assessment of incremental plant closures attributable to a regulatory option. As described in more detail below, this proposed ELG is expected to result in incremental costs when compared to baseline. Like the prior analysis of the 2015 and 2020 rules, the cost and economic impact analysis for this proposed rulemaking focuses on understanding the magnitude and distribution of compliance costs across the industry and the broader market impacts. EPA used indicators to assess the impacts of the four regulatory options on the whole steam electric power generating industry. These indicators are consistent with those used to assess the economic achievability of the 2015 rule and 2020 rule. For this proposal, EPA compared the values to a baseline that reflects implementation of existing environmental regulations (as of this proposal), including the 2020 rule. As such, the baseline appropriately includes the costs of achieving the 2020 rule limitations and standards, and the policy cases show the impacts resulting from potential changes to the existing 2020 limitations and standards. More specifically, EPA considered the total cost to industry and change in the number and capacity of specific EGUs and plants expected to close under the proposed rule (Option 3) compared to baseline. EPA also analyzed the ratio of compliance costs to revenue to see how the four main regulatory options change the number of plants and their owning entities that exceed thresholds indicating potential financial strain. In addition to the analyses supporting the economic achievability of the regulatory options, EPA conducted other analyses to (1) characterize other potential impacts of the regulatory options (*e.g.,* on electricity rates) and (2) to meet the requirements of E.O.s or other statutes (*e.g.,* E.O. 12866, Regulatory Flexibility Act, Unfunded Mandates Reform Act).

A. Plant-Specific and Industry Total Costs

EPA estimated plant-specific costs to control FGD wastewater, BA transport water, and CRL discharges at existing EGUs at steam electric plants to which the ELGs apply. EPA assessed the operations and treatment system components currently in place at a given unit (or expected to be in place because of other existing regulations, including the 2020 ELG rule), identified equipment and process changes that plants would likely make under each of the four regulatory options presented in Table VII–1 of this preamble, and estimated the capital and O&M costs to implement those changes. As explained in the TDD, the baseline also accounts for additional announced unit retirements, conversions, and relevant operational changes that have occurred since EPA promulgated the 2020 rule. Following the same methodology used for the 2015 and 2020 rule analyses, EPA used a rate of seven percent to annualize one-time costs and costs recurring on other than an annual basis. For capital costs and initial one-time costs, EPA used a 20-year amortization period. For O&M costs incurred at intervals greater than one year, EPA used the interval as the annualization period (*e.g.,* five years, 10 years). EPA added annualized capital, initial one-time costs, and the nonannual portion of O&M costs to annual O&M costs to derive total annualized plant costs. EPA then calculated total industry costs by summing plant-specific annualized costs. For the assessment of industry costs, EPA considered costs on both a pre-tax and after-tax basis.

Pre-tax annualized costs provide insight on the total expenditure as incurred, while after-tax annualized costs are a more meaningful measure of impact on privately owned for-profit entities and incorporate approximate capital depreciation and other relevant tax treatments in the analysis. EPA uses pre- and/or after-tax costs in different analyses, depending on the concept appropriate to each analysis (*e.g.,* social costs are calculated using pre-tax costs whereas cost-to-revenue screening-level

analyses are conducted using after-tax costs).

Table VIII–1 of this preamble summarizes estimates of incremental pre- and post-tax industry costs for the four regulatory options presented in Table VII–1 of this preamble as compared to baseline. The after-tax annualized costs of the proposed rule (Option 3) are $181 million.

TABLE VIII–1—ESTIMATED TOTAL ANNUALIZED INDUSTRY COSTS

[Millions of 2021$, seven percent discount rate]

Regulatory option	Pre-tax	After-tax
Option 1	$102.4	$81.1
Option 2	189.0	149.0
Option 3	230.5	181.2
Option 4	241.3	189.6

B. Social Costs

Social costs are the costs of the proposed rule from the viewpoint of society as a whole, rather than the viewpoint of regulated plants and owning entities (which are private costs). In calculating social costs, EPA tabulated the pre-tax costs in the year they are estimated to be incurred, which varies across plants based on the estimated compliance year. EPA performed the social cost analysis over a 25-year period of 2025 to 2049, which combines the length of the period during which plants are anticipated to install the control technologies (which could be as late as 2029) and the useful life of the longest-lived technology installed at any plant (20 years). EPA calculated the social cost of the proposed rule using both a primary three percent discount rate and an alternative seven percent discount rate. Social costs include costs incurred by both private entities and the government (*e.g.,* in implementing the regulation).

As described further in Chapter 10 of the RIA, there were no incremental increases in the cost to state governments to revise NPDES permits. Consequently, the only category of costs used to calculate social costs are those pre-tax costs estimated for steam electric plants. Note that the annualized social costs presented in Table VIII–2 of this preamble for the seven percent discount rate differ from comparable pre-tax industry compliance costs shown in Table VIII–1 of this preamble. The costs in Table VIII–1 of this preamble represent the annualized costs of each option if they were incurred in 2024, whereas the annualized costs in Table VIII–2 of this preamble are estimated based on the stream of future costs starting in the year that individual plants are projected to comply with the requirements of the proposed options.

Table VIII–2 of this preamble presents the total annualized social costs of the four regulatory options, compared to baseline and calculated using three percent and seven percent discount rates. The proposed rule (Option 3) has estimated incremental social costs of $200 million using a three percent discount rate and $216 million using a seven percent discount rate.

TABLE VIII–2—ESTIMATED TOTAL ANNUALIZED SOCIAL COSTS

[Millions of 2021$, three and seven percent discount rate]

Regulatory option	3% Discount rate	7% Discount rate
Option 1	$88.4	$96.6
Option 2	167.0	180.4
Option 3	200.3	216.5
Option 4	207.2	224.1

C. Economic Impacts

EPA assessed the economic impacts of this proposed rule in two ways: (1) a screening-level assessment of the cost impacts on existing EGUs at steam electric plants and the entities that own those plants, based on comparison of costs to revenue and (2) an assessment of the impacts within the context of the broader electricity market, which includes an assessment of changes in predicted plant closures attributable to the proposed rule. The following sections summarize the results of these analyses. The RIA discusses the methods and results in greater detail.

The first set of cost and economic impact analyses—at both the plant and parent company level—provides screening-level indicators of the impacts of costs for FGD wastewater, BA transport water, and CRL controls relative to historical operating characteristics of steam electric plants incurring those costs (*i.e.,* level of electricity generation and revenue). EPA conducted these analyses for baseline and for the four regulatory options presented in Table VII–1 of this preamble, then compared these impacts to understand the incremental effects of the regulatory options in this proposal.

The second set of analyses looks at broader electricity market impacts, considering the interconnection of regional and national electricity markets. This analysis also looks at the distribution of impacts at the plant and EGU level. This second set of analyses provides insight on the impacts of the proposed rule on steam electric plants, as well as the entire electricity market, including changes in capacity, generation, and wholesale electricity prices. The market analysis compares model predictions for the proposed rule to a base case that includes the predicted and observed economic and market effects of the 2020 rule and other environmental regulations.

1. Screening-Level Assessment

EPA conducted a screening-level analysis of each regulatory option's potential impact on existing EGUs at steam electric plants and parent entities based on cost-to-revenue ratios. For each of the two levels of analysis (plant and parent entity), the Agency assumed, for analytic convenience and as a worst-case scenario, that none of the compliance costs would be passed on to consumers through electricity rate increases and would instead be absorbed by the steam electric plants and their parent entities. This assumption overstates the impacts of compliance expenditures since steam electric plants that operate in a regulated market may be able to pass on changes in production costs to consumers through changes in electricity prices. It is, however, an appropriate assumption for a screening-level estimate of the potential cost impacts.

a. Plant-Level Cost-to-Revenue Analysis

EPA developed revenue estimates for this analysis using EIA data. EPA then calculated the change in the annualized after-tax costs of the four regulatory options presented in Table VII–1 of this preamble as a percent of baseline annual revenues. See Chapter 4 of the RIA for a more detailed discussion of the methodology used for the plant-level cost-to-revenue analysis.

Cost-to-revenue ratios are screening-level indicators of potential economic impacts. EPA guidance describes certain cost-to-revenue ratios for evaluating small entity impacts under the RFA (U.S. EPA 2006).[131] As described in the Guidance, plants incurring costs below one percent of revenue are unlikely to face economic impacts, while plants with costs between one percent and three percent of revenue have a higher chance of facing economic impacts, and plants incurring costs above three percent of revenue have a still higher probability of economic impact.

Under the proposed rule (Option 3), EPA estimated that 19 plants would incur incremental costs greater than or equal to one percent of revenue,

[131] U.S. Environmental Protection Agency. (2006). Final Guidance for EPA Rulewriters: Regulatory Flexibility Act as Amended by the Small Business Regulatory Enforcement Fairness Act.

including three plants that have costs greater than or equal to three percent of revenue, and an additional 73 plants would incur costs that are less than one percent of revenue. Section 4.2 in the RIA provides results for the other regulatory options EPA analyzed.

b. Parent Entity-Level Cost-to-Revenue Analysis

EPA also assessed the economic impact of the regulatory options presented in Table VII–1 of this preamble at the parent entity level. The screening-level cost-to-revenue analysis at the parent entity level provides insight on the impact on those entities that own existing EGUs at steam electric plants. In this analysis, the domestic parent entity associated with a given plant is defined as the entity with the largest ownership share in the plant. For each parent entity, EPA compared the incremental change in the total annualized after-tax costs and the total revenue for the entity to baseline (see Chapter 4 of the RIA for details). Following the methodology employed in the analyses for the 2015 and 2020 rules, EPA considered a range of estimates for the number of entities owning an existing EGU at a steam electric plant to account for partial information available for steam electric plants that are not expected to incur ELG compliance costs.

Like the plant-level analysis above, cost-to-revenue ratios provide screening-level indicators of potential economic impacts, this time to the owning entities; higher ratios suggest a higher probability of economic impacts. EPA estimated that the number of entities owning existing EGUs at steam electric plants ranges from 229 (lower-bound estimate) to 427 (upper-bound estimate), depending on the assumed ownership structure of plants not incurring ELG costs and not explicitly analyzed. EPA estimates that under the proposed rule (Option 3), four parent entities would incur annualized costs representing one percent or more of their revenues, including one parent entity that would incur costs representing more than three percent of revenue.

2. Electricity Market Impacts

To analyze the impacts of regulatory actions affecting the electric power sector, EPA commonly uses IPM, a comprehensive electricity market optimization model that can evaluate such impacts within the context of regional and national electricity markets. The model is designed to evaluate the effects of changes in EGU-level electric generation costs on the total cost of electricity supply, subject to specified demand and emissions constraints. Use of a comprehensive market analysis system is important in assessing the potential impact of any power plant regulation because of the interdependence of EGUs in supplying power to the electric transmission grid. Changes in electricity production costs at some EGUs can have a range of broader market impacts affecting other EGUs, including the average likelihood that various units are dispatched. The analysis also provides important insight on steam electric capacity closures (*e.g.,* retirements of EGUs that become uneconomical relative to other EGUs), based on a more detailed analysis of market factors than in the screening-level analyses above.

In contrast to the screening-level analyses, which are static analyses and do not account for interdependence of EGUs in supplying power to the electricity transmission grid, IPM accounts for potential changes in the generation profile of steam electric and other EGUs and consequent changes in market-level generation costs as the electric power market responds to changes in generation costs for steam electric EGUs due to the regulatory options. Additionally, in contrast to the screening-level analyses, in which EPA assumed no cost pass-through of ELG compliance costs, IPM depicts production activity in wholesale electricity markets where the specific increases in electricity prices for individual markets would result in some recovery of compliance costs for plants. IPM is based on an inventory of U.S. utility- and nonutility-owned EGUs and generators that provide power to the integrated electric transmission grid, including plants to which the ELGs apply.

EPA analyzed proposed Option 3 using IPM. The results of this analysis further inform EPA's understanding of the potential impacts of the proposed rule (Option 3). The version of IPM used for this analysis, IPM V6, embeds an energy demand forecast that is derived from DOE's ''Annual Energy Outlook 2021'' (AEO 2021). IPM also incorporates the expected compliance response into existing regulatory requirements for regulations affecting the power sector, including the 2020 ELG rule, CSAPR and CSAPR Update, MATS rule, the final 2014 CWA section 316(b) rule, and the final 2015 CCR rule and CCR Part A rule. The reference case also includes the effects of the Regional Greenhouse Gas Initiative; California's Global Warming Solutions Act; Renewable Portfolio Standards state-level policies, including recent Clean Energy Standards in Illinois, Oregon, Delaware, North Carolina, and Massachusetts; and the 45Q tax credit for CO_2 sequestration.

In analyzing the proposed option, EPA estimated incremental fixed and variable costs for the steam electric plants and EGUs to comply with Option 3. Because IPM is not designed to endogenously model the selection of wastewater treatment technologies as a function of electricity generation, effluent flows, and pollutant discharge, EPA estimated these costs exogenously for each steam EGU and input these costs into the IPM model as fixed and variable O&M cost adders in addition to the costs already reflected in the Base Case, which included compliance with the 2020 ELG rule (the baseline analysis). EPA then ran IPM with these new cost estimates to determine the dispatch of EGUs that would meet projected demand at the lowest costs, subject to the same constraints as those in the baseline analysis. The estimated changes in plant- and EGU-specific production levels and costs—and, in turn, changes in the electric power sector's total costs and production profile—are key data elements in evaluating the expected national and regional effects of the regulatory options in this proposal, including closures or avoided closures of EGUs and plants.

EPA considered impact metrics of interest at three levels of aggregation: (1) impact on national and regional electricity markets (all electric power generation, including steam and nonsteam electric plants); (2) impact on steam electric plants as a group, and (3) impact on individual steam electric plants incurring costs. Chapter 5 of the RIA discusses the first analysis; the sections below summarize the last two, which are further described in Chapter 5 of the RIA. All results presented below are representative of modeled market conditions in the model year 2030, when the plants will have implemented changes to meet the proposed ELGs.

a. Impacts on Existing Steam Electric Power Plants

EPA used IPM results for 2030 to assess the potential impact of the proposed rule on existing EGUs at steam electric plants. The purpose of this analysis is to assess any fleetwide changes from baseline impacts on EGUs at steam electric plants. Table VIII–3 of this preamble reports estimated results for existing EGUs at steam electric plants, as a group. EPA looked at the following metrics: (1) incremental early retirements and capacity closures, calculated as the difference between capacity under the regulatory option

and capacity under baseline; (2) incremental capacity closures as a percentage of baseline capacity; (3) change in electricity generation from plants subject to the ELGs; (4) changes in variable production costs per MWh, calculated as the sum of total fuel and variable O&M costs divided by net generation; and (5) changes in annual costs (fuel, variable O&M, fixed O&M, and capital). Note that changes in electricity generation at steam electric plants presented in Table VIII–3 of this preamble are attributable both to changes in retirements and changes in capacity utilization at operating EGUs and plants.

TABLE VIII-3—ESTIMATED IMPACT OF THE PROPOSED RULE (OPTION 3) ON STEAM ELECTRIC PLANTS AS A GROUP AT THE YEAR 2030

Metric	Baseline value	Change attributable to the proposed rule as compared to baseline	
		Value	Percent
Total capacity (MW)	274,256	−249	−0.1
Early retirement or closure (MW)	56,422	249	0.4
Early retirement or closure (number of plants)	28	1	3.6
Total generation (GWh)	1,226,067	−5,703	−0.5
Average variable production cost (2021$/MWh)	$21.63	$0.02	0.1
Annual cost (million 2021$)	$44,427	$2	0.0

MW = megawatt; MWh = megawatt-hour; GWh = gigawatt-hour = 1,000 MWh.

Under the proposed rule, generation at steam electric plants is projected to decrease by 5,703 GWh (0.5 percent) nationally when compared to baseline. IPM projects a net decline in total steam electric capacity by 249 MW (approximately 0.1 percent of total baseline capacity) due to early retirement attributable to this proposal. One additional plant is projected to retire early under the proposed rule when compared to baseline. See section 5.2.2.2 in the RIA for details.

These findings suggest that the proposed rule can be expected to have small economic consequences for steam electric plants as a group. Option 3 would affect the operating status of very few steam electric plants, with only one additional plant closure (a plant with very low capacity utilization of less than six percent in baseline).

b. Impacts on Individual Plants Incurring Costs

To assess potential plant-level effects, EPA also analyzed plant-specific changes attributable to the proposed rule for the following metrics: (1) capacity utilization (defined as annual generation (in MWh) divided by [capacity (MW) times 8,760 hours]), (2) electricity generation, and (3) variable production costs per MWh, defined as variable O&M cost plus fuel cost divided by net generation. The analysis of changes in individual plants is detailed in Chapter 5 of the RIA. The results indicate that most plants would experience only slight effects—*i.e.,* no change or less than a one percent reduction or one percent increase. Across the full set of steam electric plants modeled, 30 plants would incur a reduction in generation of at least one percent; 18 of these plants are also estimated to incur a reduction in capacity utilization of at least one percent. Of the subset of 46 steam electric plants that would incur costs under Option 3, 19 plants incur a decrease in generation, whereas 16 plants see no change, 10 plants close in baseline, and one additional plant closes under Option 3.

IX. Pollutant Loadings

In developing ELGs, EPA typically evaluates the pollutant loading reductions of regulatory options to assess the impacts of the compliance requirements on discharges from the whole industry. EPA took the same approach to the one described above for plant-specific costs for estimating pollutant reductions associated with this proposal. That is, EPA compared the values to a baseline that reflects implementation of existing environmental regulations, including the 2020 rule for FGD wastewater and BA transport water.

The general methodology that EPA used to calculate pollutant loadings is the same as that described in the 2020 rule. EPA first estimated—on an annual, per plant basis—the pollutant discharge load associated with the technology bases evaluated for plants to comply with the 2020 rule requirements for FGD wastewater and BA transport water, accounting for the current or planned conditions at each plant. For CRL, EPA estimated the pollutant discharge load associated with current discharges. For all wastestreams, EPA similarly estimated plant-specific post-compliance pollutant loadings as the load associated with the technology bases for plants to comply with effluent limitations based on each regulatory option in this proposal. For each regulatory option, EPA then calculated the changes in pollutant loadings at a particular plant as the sum of the differences between the estimated baseline and post-compliance discharge loads for each applicable wastestream.

For plants that discharge indirectly to POTWs, EPA adjusted the baseline and option loads to account for pollutant removals expected from POTWs. These adjusted pollutant loadings for indirect dischargers therefore reflect the resulting discharges to receiving waters. For additional details on the methodology EPA used to calculate pollutant loading reductions, see section 6 of the TDD.

A. FGD Wastewater

For FGD wastewater, EPA continued to use the average pollutant effluent concentration with plant-specific discharge flow rates to estimate the mass pollutant discharge per plant for baseline and each proposed regulatory option in Table VII–1 of this preamble. EPA used data compiled for the 2015 and 2020 rules as the initial basis for estimating discharge flow rates and updated the data to reflect retirements or other relevant changes in operation. As in the 2020 rule, EPA also accounted for increased rates of recycle through the scrubber that would affect the discharge flow.

EPA assigned pollutant concentrations for each analyte based on the operation of a treatment system designed to comply with baseline or the regulatory options. EPA used data compiled for the 2020 rule to characterize FGD chemical precipitation plus LRTR effluent and chemical

precipitation plus membrane filtration effluent. In addition, EPA used data provided by industry and other stakeholders during the 2020 rule, as described in Section IV of this preamble, to quantify bromide in FGD wastewater under baseline conditions and for the four regulatory options.

B. BA Transport Water

EPA estimated baseline and post-compliance loadings for each regulatory option in Table VII–1 of this preamble using pollutant concentrations for BA transport water and plant-specific flow rates. EPA used data compiled for the 2020 rule as the basis for estimating BA transport water discharge flows and updated the data set to reflect retirements and other relevant changes in operation (*e.g.,* ash handling conversions, fuel conversions) that have occurred since collecting the 2020 rule data. Under the baseline, which reflects the 2020 rule requirement for the high recycle rate technology option (or BMP plan in the case of Merrimack Station), EPA estimated discharge flows associated with the purge from remote MDS operation, based on the generating unit capacity and the volume of the remote MDS. Under the zero discharge option, EPA estimated a flow rate of zero.

C. CRL

For CRL, EPA used the average pollutant effluent concentration with plant-specific discharge flow rates to estimate the mass pollutant discharge per plant for baseline and chemical precipitation (proposed in each regulatory option) in Table VII–1 of this preamble. EPA used data compiled for the 2015 rule as the initial basis for estimating discharge flow rates and updated the data to reflect retirements. EPA also used utilities' ''CCR Rule Compliance Data and Information'' websites to identify new landfills constructed since 2015. For new landfills, EPA used the 2015 methodology to estimate leachate flow proportionate to landfill size, if available, or as the median leachate volume (in gallons per day (GPD)) calculated from the 2010 steam electric survey.

EPA assigned pollutant concentrations for each analyte based on current operating conditions or treatment in place for baseline and the operation of a treatment system designed to comply with the four regulatory options. EPA used data compiled for the 2015 rule to characterize untreated CRL and, as in the 2015 rule, transferred the average FGD effluent concentrations for chemical precipitation.

D. Legacy Wastewater

EPA is not proposing nationally applicable BAT limitations or PSES for legacy wastewater and, therefore, did not estimate changes in loadings under the regulatory options. EPA has nevertheless evaluated the scope of pond dewatering and decant wastewaters and associated baseline pollutant discharges in *Legacy Wastewater at CCR Surface Impoundments* (SE10252). As discussed in Section VII.B.4 of this preamble, EPA is soliciting comment on various technologies that could potentially serve as a technology basis for BAT for these two specific legacy wastewaters. EPA has evaluated the potential costs and pollutant removals of these technologies as part of its *Legacy Wastewater at CCR Surface Impoundments* (SE10252).

E. Summary of Incremental Changes of Pollutant Loadings From Four Regulatory Options

Table IX–1 of this preamble summarizes the net reduction to annual pollutant loadings, compared to baseline, associated with each regulatory option in Table VII–1 of this preamble. Compared to the 2020 rule (baseline), all regulatory options result in decreased pollutant loadings to surface waters.

TABLE IX–1—ESTIMATED INCREMENTAL REDUCTIONS IN ANNUAL POLLUTANT LOADING FOR REGULATORY OPTIONS 1, 2, 3, AND 4 [IN POUNDS/YEAR] COMPARED TO BASELINE

Regulatory option	Reductions in annual pollutant loadings
1	18,100,000
2	575,000,000
3	584,000,000
4	639,000,000

Note: Reductions in pollutant loadings are rounded to three significant figures.

X. Non-Water Quality Environmental Impacts

The elimination or reduction of one form of pollution may create or aggravate other environmental problems. Therefore, sections 304(b) and 306 of the CWA require EPA to consider non-water quality environmental impacts (including energy requirements) associated with ELGs. Accordingly, EPA has considered the potential impact of the regulatory options in this proposal on air emissions, solid waste generation, and energy consumption. In general, EPA used the same methodology (with updated data as applicable) as it did for the analyses supporting the 2015 and 2020 rules to conduct this analysis. The following sections summarize the methodology and results. See section 7 of the supplemental TDD for additional details.

A. Energy Requirements

Steam electric power plants use energy when transporting ash and other solids on or off site, operating wastewater treatment systems (*e.g.,* chemical precipitation, membrane filtration), or operating ash handling systems. For this proposal, EPA considered whether there would be an associated change in the incremental energy requirements compared to baseline. Energy requirements vary depending on the regulatory option evaluated and the current operations of the facility. Therefore, as applicable, EPA estimated the increase in energy usage in megawatt hours (MWh) for equipment added to the plant systems or in consumed fuel (gallons) for transportation/operating equipment for all four regulatory options. EPA summed the facility-specific estimates to calculate the net change in energy requirements from baseline for the regulatory options.

EPA estimated the amount of energy needed to operate wastewater treatment systems and ash handling systems based on the horsepower rating of the pumps and other equipment. EPA also estimated any changes in the fuel consumption associated with transporting solid waste and combustion residuals (*e.g.,* ash) from steam electric power plants to landfills (on- or off-site). The frequency and distance of transport depends on a plant's operation and configuration; specifically, the volume of waste generated and the availability of either an on-site or off-site nonhazardous landfill and its distance from the plant. Table X–1 of this preamble shows the net change in annual electrical energy usage associated with the regulatory options compared to baseline, as well as the net change in annual fuel consumption requirements associated with the four regulatory options compared to baseline.

TABLE X–1—ESTIMATED INCREMENTAL CHANGE IN ENERGY REQUIREMENTS ASSOCIATED WITH REGULATORY OPTIONS COMPARED TO BASELINE

Non-water quality environmental impact	Energy use associated with regulatory options			
	Option 1	Option 2	Option 3	Option 4
Electrical energy usage (MWh)	38,000	126,000	139,000	151,000
Fuel (thousand gallons)	53.0	122	622	639

B. Air Pollution

The four proposed regulatory options are expected to affect air pollution through three main mechanisms: (1) changes in auxiliary electricity use by steam electric plants to operate wastewater treatment, ash handling, and other systems needed to comply with regulatory requirements; (2) changes to transportation-related emissions due to the trucking of CCR waste to landfills; and (3) the change in the profile of electricity generation due to regulatory requirements. This section discusses air emission changes associated with the first two mechanisms and presents the corresponding estimated net changes in air emissions. See Section XII.B.3 of this preamble for additional discussion of the third mechanism.

Steam electric power plants generate air emissions from operating transport vehicles, such as dump trucks, which release criteria air pollutants and GHGs. Similarly, a decrease in energy use or vehicle operation would result in decreased air pollution.

To estimate the net air emissions associated with changes in electrical energy use projected as a result of the regulatory options in this proposal compared to baseline, EPA combined the energy usage estimates with air emission factors associated with electricity production to calculate air emissions associated with the incremental energy requirements. EPA estimated NO_X, SO_2, and CO_2 emissions using plant- or North American Electric Reliability Corporation (NERC)-specific emission factors (ton/MWh) obtained from IPM for run year 2035.[132]

To estimate net air emissions associated with the change in operation of transport vehicles, EPA used the MOVES2021b model to identify air emission factors (gram per mile) for the air pollutants of interest. EPA estimated the annual number of miles that dump trucks moving ash or wastewater treatment solids to on- or off-site landfills would travel for the regulatory options. EPA used these estimates to calculate the net change in air emissions for the four regulatory options. Table X–2 of this preamble presents EPA's estimated net change in air emissions associated with auxiliary electricity and transportation for the proposed options.

TABLE X–2—ESTIMATED NET CHANGE IN INDUSTRY-LEVEL AIR EMISSIONS ASSOCIATED WITH AUXILIARY ELECTRICITY AND TRANSPORTATION FOR OPTIONS COMPARED TO BASELINE

Non-water quality environmental impact	Option 1	Option 2	Option 3	Option 4
CO_2 (million tons/year)	0.03	0.12	0.13	0.14
NO_X (thousand tons/year)	0.02	0.065	0.081	0.085
SO_2 (thousand tons/year)	0.022	0.06	0.07	0.072

The modeled output from IPM predicts changes in electricity generation due to compliance costs attributable to the proposed options compared to baseline. These changes in electricity generation are, in turn, predicted to affect the amount of NO_X, SO_2, and CO_2 emissions from steam electric power plants.[133] A summary of the net change in annual air emissions associated with Option 3 for all three mechanisms are shown in Table X–3 of this preamble. As with costs, the IPM run from this option reflects the range of non-water quality environmental impacts associated with all four regulatory options. To provide some perspective on the estimated changes, EPA compared the estimated change in air emissions to the net amount of air emissions generated in a year by all electric power plants throughout the United States. For a detailed breakout of each of the three sources of air emission changes, see section 7 of the TDD.

[132] While EPA only ran IPM for the proposed rule (Option 3), EPA extrapolated the benefits estimated using these IPM outputs to options 1, 2, and 4 to provide insight on the potential air quality-related effects of the other regulatory options. See Section 8 of the BCA for details.

[133] EPA also considered changes in particulate matter (see Section XII.B.3 of this preamble). As explained in the BCA Chapter 8.1: ''IPM outputs include estimated CO2, NO_X, and SO_2 emissions to air from EGUs. EPA also used IPM outputs to estimate EGU emissions of primary $PM_{2.5}$ based on emission factors described in U.S. EPA (2020c). Specifically, EPA estimated primary $PM_{2.5}$ emissions by multiplying the generation predicted for each IPM plant type (ultrasupercritical coal without carbon capture and storage, combined cycle, combustion turbine, etc.) by a type-specific empirical emission factor derived from the 2016 National Emissions Inventory (NEI) and other data sources. The emission factors reflect the fuel type (including coal rank), FGD controls, and state emission limits for each plant type, where applicable.''

TABLE X–3—ESTIMATED NET CHANGE IN INDUSTRY-LEVEL AIR EMISSIONS ASSOCIATED WITH CHANGES IN AUXILIARY ELECTRICITY, TRANSPORTATION, AND ELECTRICITY GENERATION FOR PROPOSED OPTION 3 COMPARED TO BASELINE

Non-Water quality environmental impact	Change in emissions—option 3	2020 emissions by electric power generating industry
CO_2 (million tons/year)	−11	1,650
NO_X (thousand tons/year)	−5.1	1,020
SO_2 (thousand tons/year)	−5.8	954

C. Solid Waste Generation and Beneficial Use

Steam electric power plants generate solid waste associated with sludge from wastewater treatment systems (*e.g.,* chemical precipitation). EPA estimated the change in the amount of solids generated under each regulatory option for each plant compared to baseline. Table X–4 of this preamble shows the net change in annual solid waste generation, compared to baseline, associated with the four regulatory options.

TABLE X–4—ESTIMATED INCREMENTAL CHANGES TO SOLID WASTE GENERATION ASSOCIATED WITH REGULATORY OPTIONS COMPARED TO BASELINE

Non-Water quality environmental impact	Solid waste generation associated with regulatory options			
	Option 1	Option 2	Option 3	Option 4
Solids generated (tons/year)	236,000	1,220,000	1,240,000	1,330,000

EPA also evaluated the potential impacts of diverting FA from current beneficial uses toward encapsulation of membrane filtration brine for disposal in a landfill. According to the latest American Coal Ash Association survey,[134] more than half of the FA generated by coal-fired power plants is being sold for beneficial uses rather than disposed, and the majority of this beneficially used FA is replacing Portland cement in concrete. This also holds true for the specific facilities currently discharging FGD wastewater and expected to install membranes under proposed Option 3, as seen by sales of FA in the 2020 EIA–923 Schedule 8A.[135] Summary statistics of the FA beneficial use percentage for these facilities is displayed in Table X–5 below.

TABLE X–5—PERCENT OF FA SOLD FOR BENEFICIAL USE AT FACILITIES DISCHARGING FGD WASTEWATER

Statistic	FA percent sold for beneficial use (percent)
Min	0
10th	0
25th	<1

TABLE X–5—PERCENT OF FA SOLD FOR BENEFICIAL USE AT FACILITIES DISCHARGING FGD WASTEWATER—Continued

Statistic	FA percent sold for beneficial use (percent)
Median	39
Mean	46
75th	86
90th	99
Max	100

In the CCR rule,[136] EPA noted that FA replacing Portland cement in concrete would result in significant avoided environmental impacts to energy use, water use, GHG emissions, air emissions, and waterborne wastes.

Based on EPA's analysis of 2019 and 2020 EIA data, most of the power plants that would be expected to install membrane filtration under proposed Option 3 have enough FA for encapsulation before accounting for reported FA sales, leaving only two plants without enough FA needed for the estimated encapsulation recipe (by approximately 240,000 tons of FA). After accounting for reported FA sales, EPA estimates that six power plants may not have enough FA available for encapsulation (by approximately 750,000 tons of FA). These facilities would thus have to reduce sales of their FA, use additional lime, find a beneficial use of the brine, dispose of the brine through deep well injection, or reduce the volume of brine with thermal technologies including potential crystallization. EPA expects that the amount of FA required for encapsulation will vary based on the amount of FGD wastewater generated and treated in a given operating year, in addition to the variability in FA markets. Based on the 2020 EIA data, coal-fired power plants reported more than 30 million tons of FA sold, and while there are increasing FA sales reported, EPA identified more than 100 coal-fired power plants (9.6 million tons of FA) that do not report any FA sales. EPA estimates that there is enough FA to accommodate both FGD brine encapsulation needs and the beneficial use market and proposes to find that this non-water quality environmental impact is acceptable. See also discussion in Section VII.B.1.a of this preamble.

D. Changes in Water Use

Steam electric power plants generally use water for handling solid waste, including ash, and for operating wet FGD scrubbers. The technology basis for FGD wastewater in the 2020 rule, chemical precipitation plus LRTR, was not expected to reduce or increase the volume of water used. Under this proposed rule, plants that install a

[134] Available online at: *www.acaa-usa.org/wp-content/uploads/coal-combustion-products-use/2016-Survey-Results.pdf.*

[135] Available online at: *www.eia.gov/electricity/data/eia923/.*

[136] Available online at: *www.regulations.gov.* Docket ID: EPA–HQ–RCRA–2009–0640.

membrane filtration system for FGD wastewater treatment are assumed to decrease their water use compared to baseline by recycling all permeate back into the FGD system, which would avoid the costs of pumping or treating new makeup water. Therefore, EPA estimated the reduction in water use resulting from membrane filtration treatment as equal to the estimated volume of the permeate stream from the membrane filtration system.

The BA transport technologies associated with the baseline and the proposed rule for BA transport water eliminate or reduce the volume of water used by wet sluicing BA operating systems. The 2020 rule established limitations based on plants operating a high recycle rate system, allowing up to a 10 percent purge of the total system volume. As part of this rule, EPA is proposing options that include zero-discharge requirements for BA handling, which may result in a decrease in water use for BA handling by eliminating the purge. For proposed Options 1 and 2, EPA generally expects no change in water use associated with BA handling. For proposed Options 3 and 4, EPA expects to see a decrease in water use for BA handling operations. Under this proposed rule, plants that operate zero discharge BA handling systems are assumed to decrease their water use compared to baseline by recycling all transport water back to the BA handling system, which would avoid the costs of pumping or treating new makeup water. Therefore, EPA estimated the reduction in water use resulting from complete recycle as equal to the estimated volume of the 10 percent purge.

EPA does not estimate a change in water use associated with the treatment technology considered for the treatment of CRL as part of this proposed rule.

Overall, EPA estimates that plants impacted by the proposed rule would decrease their water use by 11.8 MGD compared to baseline for preferred regulatory Option 3. Table X–6 of this preamble sums the changes for FGD wastewater and BA transport water and shows the net decrease in water use, compared to baseline, for the four regulatory options.

TABLE X–6—ESTIMATED INCREMENTAL DECREASES IN WATER USE ASSOCIATED WITH REGULATORY OPTIONS COMPARED TO BASELINE

Non-Water quality environmental impact	Decreases in water use associated with regulatory options			
	Option 1	Option 2	Option 3	Option 4
Decreases in water use (MGD)	4.47	9.79	11.8	12.4

XI. Environmental Assessment

A. Introduction

EPA conducted an environmental assessment for this proposed rule. The Agency reviewed available literature on the documented environmental and human health effects of the pollutants discharged in steam electric power plant FGD wastewater, BA transport water, CRL, and legacy wastewater. EPA conducted modeling to determine the impacts of pollutant discharges from the plants to which the proposed rule applies. For the reasons described in Section VIII of this preamble of this preamble, the baseline for these analyses appropriately consists of the environmental and human health results of achieving the 2020 rule requirements (the same baseline EPA used to evaluate costs, benefits, and pollutant loads). Under this assessment, EPA compared the change in impacts associated with the four regulatory options presented in Table VII–1 of this preamble to those projected under baseline.

Information from EPA's review of the scientific literature and documented cases of impacts of pollutants discharged in steam electric power plant wastewater on human health and the environment, as well as a description of EPA's modeling methodology and results, are provided in the Environmental Assessment for Proposed Supplemental ELGs (EA Report). The EA Report contains information on literature that EPA has reviewed since the 2020 rule, updates to the environmental assessment analyses, and modeling results for each of the regulatory options in this proposal. The 2015 EA (EPA–821–R–15–006) and 2020 EA (EPA 821–R–20–002) provide information from EPA's earlier review of the scientific literature and documented cases of the impacts associated with the wider range of steam electric power plant wastewater discharges addressed in the 2015 rule on human health and the environment, as well as a full description of EPA's modeling methodology.

Current scientific literature indicates that untreated steam electric power plant wastewaters, such as FGD wastewater, BA transport water, CRL, and legacy wastewater, contain large amounts of a wide range of pollutants, some of which are toxic and bioaccumulative and cause detrimental environmental and human health impacts. For additional information, see section 2 of the EA Report. EPA also considered environmental and human health effects associated with changes in air emissions, solid waste generation, and water withdrawals. Sections X and XII of this preamble discuss these effects.

B. Updates to the Environmental Assessment Methodology

The environmental assessment modeling for this proposed rule consisted of the steady-state, national-scale immediate receiving water (IRW) model that EPA used to evaluate the direct and indirect discharges from steam electric power plants for the 2020 ELG rule, 2015 ELG rule, and 2015 CCR rule. The model focused on impacts within the immediate surface waters where discharges occurred (the closest segments of approximately 0.25 miles to five miles long). EPA also modeled receiving water concentrations downstream from steam electric power plant discharges using a downstream fate and transport model (*see* Section XII of this preamble). For this proposed rule, the Agency expanded its environmental assessment to evaluate cumulative impacts by assessing human health impacts from the joint toxic action of multiple pollutants in steam electric power plant discharges. The environmental assessment also incorporates changes to the industry profile outlined in Section V of this preamble.

C. Outputs From the Environmental Assessment

Compared to baseline, EPA estimated environmental and ecological changes associated with changes in pollutant loadings for the four regulatory options presented in Table VII–1 of this preamble. These include changes in impacts to wildlife and humans. More specifically, in addition to other unquantified environmental changes (*e.g.,* groundwater quality and attractive nuisances), the environmental

assessment evaluated changes in: (1) surface water quality, (2) impacts to wildlife, (3) number of receiving waters with potential human health cancer risks, (4) number of receiving waters with potential to cause noncancer human health effects, (5) metal and nutrient discharges to sensitive waters (*e.g.,* CWA Section 303(d) impaired waters impaired waters), and (6) number of receiving waters with potential joint toxic action of multiple pollutants. EPA also evaluates further impacts in Section XII of this preamble.

As described in the EA Report, EPA focused its quantitative analyses on the changes in environmental and human health impacts associated with exposure to toxic bioaccumulative pollutants via the surface water pathway. EPA modeled changes in discharged toxic, bioaccumulative pollutants from FGD wastewater, BA transport water, and CRL into rivers, streams, and lakes, including reservoirs. EPA also addressed environmental impacts from nutrients in the EA Report, as well as in a separate analysis in Section XII of this preamble.

The environmental assessment concentrates on impacts to aquatic life based on changes in surface water quality; impacts to aquatic life based on changes in sediment quality in surface waters; impacts to wildlife from consumption of contaminated aquatic organisms; and impacts to human health from consumption of contaminated fish and water. The EA Report discusses, with quantified results, the estimated environmental improvements projected within the immediate receiving waters due to the estimated pollutant loading reductions associated with the regulatory options in this proposal compared to the 2020 rule.

XII. Benefits Analysis

This section summarizes EPA's estimates of the changes in national environmental benefits expected to result from changes in steam electric plant discharges described in Section IX of this preamble, and the resultant environmental effects, summarized in Section XI of this preamble. The Benefit Cost Analysis (BCA) report provides additional details on the benefits methodologies and analyses. The analysis methodology for quantified benefits is generally the same that EPA used for the 2015 and 2020 rules, but with revised inputs and assumptions that reflect updated data and regulatory options.

A. Categories of Benefits Analyzed

Table XII–1 of this preamble summarizes benefit categories associated with the four regulatory options and notes which categories EPA was able to quantify and monetize. Analyzed benefits fall into four broad categories: (1) human health benefits from surface water quality improvements, (2) ecological conditions and effects on recreational use from surface water quality changes, (3) market and productivity benefits, and (4) air-related effects.[137] Within these broad categories, EPA was able to assess the benefits associated with the regulatory options in this proposal with varying degrees of completeness and rigor. Where possible, EPA quantified the expected changes in effects and estimated monetary values. However, data limitations, modeling limitations, and gaps in the understanding of how society values certain environmental changes prevent EPA from quantifying and/or monetizing some benefit categories. EPA notes that all human health and environmental improvements discussed in the EA Report also represent benefits of the proposal (whether quantified or unquantified), and the Agency will continue to enhance its benefits analysis methods where appropriate as it finalizes the rule.

The following section summarizes EPA's analysis of the benefit categories the Agency was able to partially quantify and/or monetize to various degrees (identified in the columns of Table XII–1 of this preamble, respectively). EPA solicits comment on the extent to which unquantified benefits (*e.g.,* some health endpoints without defined dose-response relationship) or partially quantified benefits (*e.g.,* the social cost of GHG metrics which omit many significant categories of climate damages) could be more fully quantified and/or monetized for any final rule. The regulatory options would also affect additional benefit categories that the Agency was not able to quantify or monetize at all. The BCA Report further describes some of these important nonmonetized benefits, and the Agency solicits comment on the extent to which these benefits could be quantified and/or monetized for any final rule.

TABLE XII–1—SUMMARY OF ESTIMATED BENEFITS CATEGORIES

Benefit category	Quantified and monetized	Quantified, but not monetized	Neither quantified nor monetized
Human Health Benefits From Surface Water Quality Improvements			
Changes in incidence of bladder cancer from exposure to total trihalomethanes (TTHM) in drinking water	☐		
Changes in incidence of cancer from arsenic exposure via consumption of self-caught fish		☐	
Changes in incidence of cardiovascular disease from lead exposure via consumption of self-caught fish			☐
Changes in incidence of other cancer and noncancer adverse health effects (*e.g.,* reproductive, immunological, neurological, circulatory, or respiratory toxicity) due to exposure to arsenic, lead, cadmium, and other toxics from consumption of self-caught fish or drinking water		☐	☐
Changes in IQ loss in children from lead exposure via consumption of self-caught fish	☐		
Changes in specialized education needs for children from lead exposure via fish consumption of self-caught fish		☐	
Changes in *in utero* mercury exposure via maternal fish consumption of self-caught fish	☐		

[137] Consistent with Office of Management and Budget Circular A–4, EPA appropriately considers ancillary benefits of this proposal (*e.g.,* air benefits). Circular A–4 states:

> *Your analysis should look beyond the direct benefits and direct costs of your rulemaking and consider any important ancillary benefits and countervailing risks. An ancillary benefit is a favorable impact of the rule that is typically unrelated or secondary to the statutory purpose of the rulemaking . . .*

TABLE XII–1—SUMMARY OF ESTIMATED BENEFITS CATEGORIES—Continued

Benefit category	Quantified and monetized	Quantified, but not monetized	Neither quantified nor monetized
Changes in health hazards from exposure to pollutants in waters used recreationally (*e.g.,* swimming)			☐
Ecological Condition and Recreational Use Effects From Surface Water Quality Changes			
Benefits from changes in surface water quality, including: aquatic and wildlife habitat; water-based recreation, including fishing, swimming, boating, and near-water activities; aesthetic benefits, such as enhancement of adjoining site amenities (*e.g.,* residing, working, traveling, and owning property near the water); [a] and nonuse value (existence, option, and bequest value from improved ecosystem health) [a]	☐		
Benefits from protection of threatened and endangered species		☐	
Changes in sediment contamination			☐
Market and Productivity Benefits			
Changes in water treatment costs for municipal drinking water, irrigation water, and industrial process			☐
Changes in commercial fisheries yields			☐
Changes in tourism and participation in water-based recreation.			☐
Changes in property values from water quality changes			☐
Changes in maintenance dredging of navigational waterways and reservoirs due to changes in sediment discharges	☐		
Air-Related Effects			
Human health benefits from changes in morbidity and mortality from exposure to NO_X, SO_2, and particulate matter ($PM_{2.5}$)	☐		
Avoided climate change impacts from CO_2 emissions	☐		

[a] Some, although not necessarily all, of these values are implicit in the total willingness to pay (WTP) for water quality improvements.

B. Quantification and Monetization of Benefits

1. Human Health Effects From Surface Water Quality Changes

Changes in pollutant discharges from steam electric plants affect human health in multiple ways. Exposure to pollutants in steam electric power plant discharges via consumption of fish from affected waters can cause a wide variety of adverse health effects, including cancer, kidney damage, nervous system damage, fatigue, irritability, liver damage, circulatory damage, vomiting, diarrhea, brain damage, and IQ loss. Exposure to drinking water containing brominated disinfection byproducts can cause adverse health effects such as cancer and reproductive and fetal development issues. Because the regulatory options in this proposal would change discharges of steam electric pollutants into waterbodies that directly receive or are downstream from these discharges, they may alter incidence of associated illnesses, even if by relatively small amounts.

Due to data limitations and uncertainties, EPA can only monetize a subset of the health benefits associated with changes in pollutant discharges from steam electric plants resulting from the regulatory options in this proposal as compared to baseline. EPA estimated the change in the number of individuals experiencing adverse human health effects in the populations exposed to steam electric discharges and/or altered exposure levels and valued these changes using different monetization methods for different benefit endpoints.

EPA estimated changes in health risks from the consumption of contaminated fish from waterbodies within 50 miles of households. EPA used Census block population data and region-specific average fishing rates to estimate the exposed population. EPA used cohort-specific fish consumption rates and waterbody-specific fish tissue concentration estimates to calculate potential exposure to steam electric pollutants in recreational fishers' households. Cohorts were defined by age, sex, race/ethnicity, and fishing mode (recreational or subsistence). EPA used these data to quantify and monetize changes in two categories of human health effects, which are further detailed in the BCA Report: (1) changes in IQ loss in children aged zero to seven from lead exposure via fish consumption and (2) changes in *in utero* mercury exposure via maternal fish consumption and associated IQ loss. EPA also analyzed the changes in the incidence of skin cancer from arsenic exposure via fish consumption but found negligible changes and therefore did not monetize the associated benefits.

Table XII–2 of this preamble summarizes the monetary value of changes in estimated health outcomes associated with consumption of contaminated fish for the ELG options compared to baseline. EPA estimated the annualized benefits of the proposed rule at $3.1 million using a three percent discount rate ($0.6 million using a seven percent discount rate). Chapter 5 of the BCA provides additional detail on the methodology. EPA solicits comment on the assumptions and uncertainties included in this analysis.

TABLE XII–2—ANNUALIZED ESTIMATED BENEFITS OF CHANGES IN HUMAN HEALTH OUTCOMES ASSOCIATED WITH FISH CONSUMPTION (MILLIONS OF 2021$) FOR PROPOSED ELG OPTIONS COMPARED TO BASELINE

Discount rate	Regulatory option	Reduced lead exposure for children	Reduced mercury exposure for children	Total
3%	Option 1	$0.00	$2.94	$2.94
	Option 2	0.00	2.99	2.99
	Option 3	0.00	3.11	3.11
	Option 4	0.01	3.11	3.12
7%	Option 1	0.00	0.54	0.54
	Option 2	0.00	0.55	0.55
	Option 3	0.00	0.58	0.58
	Option 4	0.00	0.58	0.58

EPA also estimated changes in bladder cancer incidence from the use and consumption of drinking water with changing levels of total trihalomethanes (TTHMs) resulting from reductions in bromide loadings associated with the four regulatory options relative to baseline. EPA estimated changes in cancer risks within populations served by drinking water treatment plants with intakes on surface waters affected by bromide discharges from steam electric plants. EPA used Safe Drinking Water Information System and U.S. Census data to estimate and characterize the exposed population. EPA modeled changes in waterbody-specific bromide concentrations and changes in drinking water treatment facility-specific TTHM concentrations to calculate potential changes in TTHM exposure and associated adverse health outcomes.

Table XII–3 of this preamble summarizes the estimated monetary value of estimated changes in bromide-related human health outcomes from modeled surface water quality improvements under the four regulatory options. The proposed rule (Option 3) is estimated to result in 112 avoided cancer cases and to have associated annualized benefits of $9.6 million using a three percent discount rate ($6.2 million using a seven percent discount rate).

TABLE XII–3—ESTIMATED ANNUALIZED HUMAN HEALTH BENEFITS OF CHANGING BROMIDE DISCHARGES (MILLIONS OF 2021$) UNDER THE PROPOSED ELG OPTIONS COMPARED TO BASELINE

Discount rate	Regulatory option	Benefits from avoided mortality	Benefits from avoided morbidity	Total benefits
3%	Option 1	$0.45	$0.00	$0.45
	Option 2	9.29	0.08	9.37
	Option 3	9.53	0.08	9.61
	Option 4	12.60	0.10	12.70
7%	Option 1	0.13	0.00	0.28
	Option 2	6.04	0.05	6.09
	Option 3	6.19	0.05	6.24
	Option 4	8.19	0.07	8.26

The formation of TTHM in a particular water treatment system is a function of several site-specific factors, including chlorine, bromine, organic carbon, temperature, pH, and the system residence time. EPA did not collect site-specific information on these factors at each potentially affected drinking water treatment facility. Instead, EPA's analysis only addresses the estimated site-specific changes in bromides. EPA used the national relationship between changes in TTHM exposure and changes in incidence of bladder cancer modeled by Regli et al. (2015) [138] and Weisman et al. (2022).[139] Thus, while the national changes in TTHM and bladder cancer incidence given estimated changes in bromide are EPA's best estimate, EPA cautions that estimates for any specific drinking water treatment facility could be over- or underestimated. Additional details on this analysis are provided in Chapter 4 of the BCA Report. EPA solicits comment on all aspects of the approach to assessing bladder cancer risk as well as the uncertainty surrounding site-specific estimated benefits, as well as data that would help EPA evaluate this uncertainty.

[138] Regli, S., Chen, J., Messner, M., Elovitz, M.S., Letkiewicz, F.J., Pegram, R.A., . . . Wright, J.M. (2015). Estimating Potential Increased Bladder Cancer Risk Due to Increased Bromide Concentrations in Sources of Disinfected Drinking Waters. Environmental Science & Technology, 49(22), 13094–13102. *doi.org/10.1021/acs.est.5b03547.*

[139] Weisman, R., Heinrich, A., Letkiewicz, F., Messner, M., Studer, K., Wang, L., . . . Regli, S. (2022). Estimating National Exposures and Potential Bladder Cancer Cases Associated with Chlorination DBPs in U.S. Drinking Water. Environmental Health Perspectives, 130:8, 087002–1–087002–10. *ehp.niehs.nih.gov/doi/full/10.1289/EHP9985.*

2. Ecological Condition and Recreational Use Effects From Changes in Surface Water Quality Improvements

EPA evaluated whether the regulatory options in this proposal would alter aquatic habitats and human welfare by changing concentrations of harmful pollutants such as arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, zinc, nitrogen, phosphorus, and suspended sediment relative to baseline. As a result, the usability of some recreational waters relative to baseline discharge conditions could change under each option, thereby affecting recreational users. Changes in pollutant loadings can also change the attractiveness of recreational waters by making recreational trips more or less enjoyable. The regulatory options may also change nonuse values stemming from bequest, altruism, and

existence motivations. Individuals may value water quality maintenance, ecosystem protection, and healthy species populations independent of any use of those attributes.

EPA uses a water quality index (WQI) to translate water quality measurements, gathered for multiple parameters that are indicative of various aspects of water quality, into a single numerical indicator that reflects achievement of quality consistent with the suitability for certain uses. The WQI includes seven parameters: dissolved oxygen, biochemical oxygen demand, fecal coliform, total nitrogen, total phosphorus, TSS, and one aggregate subindex for toxics. EPA modeled changes in four of these parameters and held the remaining parameters (dissolved oxygen, biochemical oxygen demand, and fecal coliform) constant for the purposes of this analysis.

EPA estimated the change in monetized benefit values using an updated version of the meta-regressions of surface water valuation studies used in the benefit analyses of the 2015 and 2020 rules. The meta-regressions quantify average household willingness to pay (WTP) for incremental improvements in surface water quality. Chapter 6 of the BCA provides additional detail on the valuation methodology.

Table XII–4 of this preamble presents annualized total WTP values for water quality changes associated with reductions in metal (arsenic, cadmium, chromium, copper, lead, mercury, zinc, and nickel), nonmetal (selenium), nutrient (phosphorus and nitrogen), and sediment pollutant discharges to the reach miles affected by the proposed regulatory options. An estimated 82 million households reside in Census block groups within 100 miles of reaches with steam electric plants affected under the proposed rule.[140] The central tendency estimate of the total annualized benefits of water quality changes for the proposed rule are $4.1 million using a three percent discount rate ($3.6 million using a seven percent discount rate).

TABLE XII–4—ESTIMATED TOTAL WTP FOR WATER QUALITY IMPROVEMENTS UNDER THE PROPOSED ELG OPTIONS COMPARED TO BASELINE

Regulatory option	Number of affected households (million)	Average annual WTP per household (2021$)	Total annualized WTP (million 2021$)	
			3% Discount rate	7% Discount rate
Option 1	76.2	$0.05	$3.02	$2.64
Option 2	80.6	0.05	3.82	3.32
Option 3	82.1	0.06	4.09	3.56
Option 4	82.1	0.06	4.27	3.73

3. Changes in Air-Quality-Related Effects

EPA expects the proposed options to affect air pollution through three main mechanisms: (1) changes in auxiliary electricity use by steam electric facilities to operate wastewater treatment, ash handling, and other systems that facilities may use under each proposed option; (2) changes in transportation-related air emissions due to changes in trucking of CCR waste to landfills; and (3) changes in the electricity generation profile from increases in wastewater treatment costs compared to baseline and the resulting changes in EGU relative operating costs.

Changes in the electricity generation profile can increase or decrease air pollutant emissions because emission factors vary for different types of EGUs. For this analysis, the changes in air emissions are based on the change in dispatch of EGUs as projected by IPM after overlaying the costs of complying with the proposed rule onto EGUs' production costs. As discussed in Section VIII of this preamble, the IPM analysis accounts for the effects of other regulations on the electric power sector.

EPA evaluated potential effects resulting from net changes in air emissions of four pollutants: CO_2, NO_X, SO_2, and primary $PM_{2.5}$. CO_2 is a key GHG linked to a wide range of climate-related effects, and also the main GHG emitted from coal power plants. NO_X and SO_X are precursors to fine particles sized 2.5 microns and smaller ($PM_{2.5}$), which are also emitted directly, and NO_X is an ozone precursor. These air pollutants cause a variety of adverse health effects including premature death, nonfatal heart attacks, hospital admissions, emergency department visits, upper and lower respiratory symptoms, acute bronchitis, aggravated asthma, lost work and school days, and acute respiratory symptoms.

Table XII–5 of this preamble shows the changes in emissions of CO_2, NO_X, SO_2, and primary $PM_{2.5}$ under the proposed rule (Option 3) relative to baseline for selected IPM run years. The proposed rule would result in a net reduction in air emissions of all four pollutants. This effect is driven mostly by the estimated changes in the profile of electricity generation, as emission reductions due to shifts in modeled EGU dispatch and energy sources offsets relatively small increases in air emissions from increased electricity use and trucking by steam electric plants.

[140] A reach is a section of a stream or river along which similar hydrologic conditions exist, such as discharge, depth, area, and slope.

TABLE XII–5—ESTIMATED CHANGES IN AIR POLLUTANT EMISSIONS UNDER THE PROPOSED RULE COMPARED TO BASELINE

Year	CO_2 (million metric tonnes/year)	NO_X (thousand short tons/ year)	SO_2 (thousand short tons/ year)	Primary $PM_{2.5}$ (thousand short tons/ year)
2028	−0.7	−1.9	−1.0	−0.12
2030	−4.7	−3.3	−2.0	−0.20
2035	−10.5	−5.1	−5.8	−0.32
2040	−7.2	−3.7	−4.4	−0.19
2045	−11.9	−7.5	−9.3	−0.75
2050	−3.0	−2.0	−7.6	−0.13

EPA estimated the monetized value of human health benefits among populations exposed to changes in $PM_{2.5}$ and ozone. The proposed rule is expected to alter the emissions of primary $PM_{2.5}$, SO_2 and NO_X, which will in turn affect the level of $PM_{2.5}$ and ozone in the atmosphere. Using photochemical modeling, EPA predicted the change in the annual average $PM_{2.5}$ and summer season ozone across the United States. EPA next quantified the human health impacts and economic value of these changes in air quality using the environmental Benefits Mapping and Analysis Program—Community Edition. EPA quantified effects using concentration-response parameters, which are consistent with those the Agency used in the PM NAAQS, Ozone NAAQS, and ACE RIAs (U.S. EPA, 2012; 2015; 2019).

To estimate the climate benefits associated with changes in CO_2 emissions, EPA used estimates of the social cost of carbon ($SC–CO_2$) to value changes in CO_2 emissions. The $SC–CO_2$ is the monetary value of the net harm to society associated with a marginal increase in CO_2 emissions in a given year, or the benefit of avoiding that increase.[141]

EPA estimates the climate benefits of CO_2 emission reductions expected from the proposed rule using the $SC–CO_2$ estimates presented by the Interagency Working Group on the Social Cost of Greenhouse Gases (IWG) in the February 2021 Technical Support Document (TSD): Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under E.O. 13990 (IWG 2021). These $SC–CO_2$ estimates are interim values developed under E.O. 13990 for use in benefit-cost analyses until updated estimates of the impacts of climate change can be developed based on the best available climate science and economics. EPA has evaluated the $SC–CO_2$ estimates in the TSD and have determined that these estimates are appropriate for use in estimating the climate benefits of CO_2 emission reductions expected from this proposed rule. After considering the TSD, and the issues and studies discussed therein, EPA finds that these estimates, while likely an underestimate, are the best currently available $SC–CO_2$ estimates. These $SC–CO_2$ estimates were developed over many years, using a transparent process, peer-reviewed methodologies, the best science available at the time of that process, and with input from the public.[142] The IWG is currently working on a comprehensive update of the $SC–CO_2$ estimates (under E.O. 13990) taking into consideration recommendations from the National Academies of Sciences, Engineering and Medicine, recent scientific literature, public comments received on the February 2021 TSD and other input from experts and diverse stakeholder groups. The EPA is participating in the IWG's work. In addition, while that process continues, EPA is continuously reviewing developments in the scientific literature on the $SC–CO_2$, including more robust methodologies for estimating damages from emissions, and looking for opportunities to further improve $SC–CO_2$ estimation going forward. Most recently, EPA has developed a draft updated $SC–CO_2$ methodology within a sensitivity analysis in the regulatory impact analysis of EPA's November 2022 supplemental proposal for oil and gas standards that is currently undergoing external peer review and a public comment process. See Chapter 8 of the BCA for more discussion of this effort.

Table XII–6 of this preamble shows the annualized climate change, $PM_{2.5}$, and ozone-related human health benefits for the proposed rule (Option 3). Climate change benefits are presented for each of four $SC–CO_2$ values and discounted using the same discount rate used in developing the $SC–CO_2$ values, whereas the $PM_{2.5}$ and ozone-related human health benefits are based on long-term ozone exposure mortality risk estimates and with three and seven percent discount rates. Consistent with the 2015 rule, summary benefits and net benefits estimates focus on the three percent (average) $SC–CO_2$ value. See Chapter 8 of the BCA report for benefits based on pooled short-term ozone exposure mortality risk estimate.

[141] In principle, the $SC–CO_2$ includes the value of all climate change impacts, including (but not limited to) changes in net agricultural productivity, human health effects, property damage from increased flood risk and natural disasters, disruption of energy systems, risk of conflict, environmental migration, and the value of ecosystem services. The $SC–CO_2$ therefore, reflects the societal value of reducing emissions of by one metric ton. EPA and other Federal agencies began regularly incorporating estimates of $SC–CO_2$ in their benefit-cost analyses conducted under Executive Order (E.O.) 12866 since 2008, following a Ninth Circuit Court of Appeals remand of a rule for failing to monetize the benefits of reducing CO_2 emissions in a rulemaking process.

[142] As discussed in Chapter 8 of the BCA, these interim $SC–CO_2$ estimates have a number of limitations, including that the models used to produce them do not include all of the important physical, ecological, and economic impacts of climate change recognized in the climate-change literature and that several modeling input assumptions are outdated. As discussed in the February 2021 TSD, the IWG finds that, taken together, the limitations suggest that these $SC–CO_2$ estimates likely underestimate the damages from CO_2 emissions.

TABLE XII–6—ESTIMATED CHANGES IN AIR POLLUTANT EMISSIONS UNDER THE PROPOSED RULE COMPARED TO BASELINE

[Millions of 2021$]

$SC–CO_2$	Climate change benefits	$PM_{2.5}$ and ozone related human health benefits at 3% discount rate [a]	Total	Climate change benefits	$PM_{2.5}$ and ozone related human health benefits at 7% discount rate	Total
3% (Average)	$440	$1,100	$1,540	$440	$840	$1,280
5% (Average)	140	1,100	1,240	140	840	980
2.5% (Average)	630	1,100	1,730	630	840	1,470
3% (95th Percentile)	1,300	1,100	2,400	1,300	840	2,140

[a] Reflects long-term ozone exposure mortality risk estimate.

Estimates of monetized co-benefits shown here do not include several important benefit categories, such as direct exposure to SO_2, NO_X, and HAPs, including mercury and hydrogen chloride. Although EPA does not have sufficient information or modeling available to provide monetized estimates of changes in exposure to these pollutants for the proposed rule, EPA includes a discussion of these unquantified benefits in the BCA. For more information on the benefits analysis, see Chapter 8 of the BCA Report.

4. Other Quantified and/or Monetized Benefits

a. Changes in Dredging Costs

The four regulatory options would affect discharge loadings of various categories of pollutants, including TSS, thereby changing the rate of sediment deposition to affected waterbodies, including navigable waterways and reservoirs that require dredging for maintenance. Sediment buildup in navigable waterways, including rivers, lakes, bays, shipping channels, and harbors can reduce the navigable depth and width of the waterway. In many cases, periodic dredging is necessary to keep them passable. Reservoirs serve many functions, including storage of drinking and irrigation water supplies, flood control, hydropower supply, and recreation. Streams can carry sediment into reservoirs, where it can settle and cause buildup of silt layers over time. Sedimentation reduces reservoir capacity and the useful life of reservoirs unless measures such as dredging are taken to reclaim capacity. As it had done for the 2015 and 2020 rule analyses, EPA estimated changes in sedimentation and associated maintenance dredging costs in reaches and reservoirs affected by steam electric plant discharges. Chapter 9 of the BCA provides additional detail on the methodology.

EPA expects that the proposed rule may provide relatively small annualized cost savings ranging from $3,900 to $5,500 per year, using three percent and seven percent discount rates, respectively.

b. Benefits to Threatened and Endangered Species

To assess the potential for the rule to benefit threatened and endangered species (both aquatic and terrestrial) relative to the 2020 ELG baseline, EPA analyzed the overlap between waters expected to see reductions in wildlife water quality criteria exceedance status under a particular option and the known critical habitat locations of high-vulnerability threatened and endangered species. EPA examined the life history traits of potentially affected threatened and endangered species and categorized them by potential for population impacts due to surface water quality changes. Chapter 7 of the BCA Report provides additional detail on the methodology. EPA's analysis showed that there are 28 species whose known critical habitats overlap with surface waters where facilities may be affected by the proposed options. Improvements under the proposed rule between 2025 and 2029 are estimated to potentially benefit five species, including two species EPA categorized as having a higher vulnerability to water pollution (Colorado pikeminnow and Razorback sucker). Improvements projected after 2030 are estimated to benefit three species, including one higher vulnerability species (Topeka Shiner). Principal sources of uncertainty include the specifics of how changes under the regulatory options will impact threatened and endangered species, exact spatial distribution of the species, and additional species of concern not considered.

C. Total Monetized Benefits

Using the analysis approach described above, EPA estimated annualized benefits of the four regulatory options for all monetized categories. Table XII–7 and Table XII–8 of this preamble summarize the total annualized benefits using three percent and seven percent discount rates, respectively. The proposed rule (Option 3) has monetized benefits estimated at $1,557 million using a three percent discount rate and $1,290 million using a seven percent discount rate.

TABLE XII–7—SUMMARY OF TOTAL ESTIMATED ANNUALIZED MONETIZED BENEFITS AT THREE PERCENT

[Millions of 2021$]

Benefit category	Option 1	Option 2	Option 3	Option 4
Human Health Effects from Water Quality Changes	$3.4	$12.4	$12.7	$15.8
Changes in IQ losses in children from exposure to lead [a]	<0.01	<0.01	0.01	0.01
Changes in IQ losses in children from exposure to mercury	2.9	3.0	3.1	3.1
Reduced cancer risk from disinfection byproducts in drinking water	0.5	9.4	9.6	12.7
Ecological Conditions and Recreational Use Changes	3.0	3.8	4.1	4.3
Use and nonuse values for water quality improvements	3.0	3.8	4.1	4.3
Market and Productivity [a]	<0.01	<0.01	<0.01	<0.01

TABLE XII–7—SUMMARY OF TOTAL ESTIMATED ANNUALIZED MONETIZED BENEFITS AT THREE PERCENT—Continued

[Millions of 2021$]

Benefit category	Option 1	Option 2	Option 3	Option 4
Changes in dredging costs [a]	<0.01	<0.01	<0.01	<0.01
Air-Related Effects	690	1,320	1,540	1,650
Changes in CO_2 air emissions [b c]	190	370	440	450
Changes in human health effects from Changes in NO_X and SO_2 emissions [b]	500	950	1,100	1,200
Total	696	1,336	1,557	1,670

[a] "<$0.01" indicates that monetary values are greater than $0 but less than $0.01 million.
[b] EPA estimated the air-related benefits for Option 3 using IPM. EPA did not analyze Options 1, 2, and 4 using IPM. Instead, EPA extrapolated estimates for air-related benefits from Options 1, 2, and 4 from the estimate for Option 3 in proportion to social costs.
[c] Changes in CO_2 air emissions monetized using the SC–CO_2 at 3% (average). See Section XII.B.3 of this preamble for benefits monetized using other SC–CO_2 values.

TABLE XII–8—SUMMARY OF TOTAL ESTIMATED ANNUALIZED MONETIZED BENEFITS AT SEVEN PERCENT

[Millions of 2021$]

Benefit category	Option 1	Option 2	Option 3	Option 4
Human Health Effects from Water Quality Changes	$0.8	$6.6	$6.8	$8.8
Changes in IQ losses in children from exposure to lead [a]	<0.01	<0.01	<0.01	<0.01
Changes in IQ losses in children from exposure to mercury	0.5	0.6	0.6	0.6
Reduced cancer risk from DBPs in drinking water	0.3	6.1	6.2	8.3
Ecological Conditions and Recreational Use Changes	2.6	3.3	3.6	3.7
Use and nonuse values for water quality improvements	2.6	3.3	3.6	3.7
Market and Productivity [a]	<0.01	<0.01	<0.01	<0.01
Changes in dredging costs [a]	<0.01	<0.01	<0.01	<0.01
Air-Related Effects	570	1,070	1,280	1,320
Changes in CO_2 air emissions [b c]	190	370	440	450
Changes in human health effects from Changes in NO_X and SO_2 emissions [b]	380	700	840	870
Total	573	1,080	1,290	1,333

[a] "<$0.01" indicates that monetary values are greater than $0 but less than $0.01 million.
[b] EPA estimated the air-related benefits for Option 3 using IPM. EPA did not analyze Options 1, 2, and 4 using IPM. Instead, EPA extrapolated estimates for air-related benefits from Options 1, 2, and 4 from the estimate for Option 3 in proportion to social costs.
[c] Changes in CO_2 air emissions monetized using the SC–CO_2 at 3% (average). See Section XII.B.3 for benefits monetized using other SC–CO_2 values.

D. Additional Benefits

The monetary value of the proposed rule's effects on social welfare does not account for all effects of the proposed options because, as described above, EPA is currently unable to quantify and/or monetize some categories. EPA anticipates the proposed rule would also generate important unquantified benefits, including but not limited to:

- health benefits to over 30 million people who will experience reductions in PWS-level arsenic, lead, and thallium concentrations, including reductions in unmonetized cancer and non-cancer effects from exposure to toxic pollutants from consumption of fish consumption or drinking water;
- reduced cardiovascular disease from changes in exposure to lead from fish consumption;
- unquantified and unmonetized averted IQ losses and educational effects from childhood lead exposure and *in-utero* mercury exposure from fish consumption by households that do not engage in recreational and subsistence fishing;
- reduced cancer morbidity effects beyond medical expenses;
- improved habitat conditions for plants, invertebrates, fish, amphibians, and the wildlife that prey on aquatic organisms;
- enhanced ecosystem productivity and health, including reduced toxic discharges into habitats for over 100 high-vulnerability threatened and endangered species;
- changes to water treatment costs for drinking water, irrigation, and agricultural uses;
- changes in fisheries yield and harvest quality from aquatic habitat changes;
- changes in health hazards from recreational exposures; and
- groundwater quality impacts.

While some health benefits and willingness to pay for water quality improvements have been partially quantified and/or monetized, those estimates may not fully capture all important water quality-related benefits. Although the following quantifications cannot necessarily be combined with other monetized effects, another way to characterize the benefits is that the proposed rule is expected to result in a 12.5 percent reduction in chronic exceedances and a 100 percent reduction in acute exceedances of the national recommended water quality criteria, and up to an 82 percent reduction in the number of reaches with ambient concentrations exceeding human health criteria for at least one pollutant.

The BCA Report discusses changes in these potentially important effects qualitatively, indicating their potential magnitude where possible. EPA will continue to seek to enhance its approaches to quantify and/or monetize a broader set of benefits for any final rule and solicits comment on monetizing some of these additional

benefits categories consistent with the approach discussed in IPI (2022).[143]

XIII. Environmental Justice Impacts

Consistent with EPA's commitment to integrating environmental justice (EJ) in the Agency's actions, the Agency has analyzed the impacts of this action on communities with EJ concerns and sought input and feedback from stakeholders representing these communities. EPA has prepared this analysis to implement the recommendations of the Agency's EJ Technical Guidance.[144] For ELG rulemakings, this analysis is typically conducted as part of the BCA alongside other nonstatutorily required analyses such as monetized benefits, but for this action was placed in a standalone Environmental Justice Analysis (EJA) document to present in more detail the potential EJ impacts of this proposal and the initial outreach to communities with potential EJ impacts. This analysis is intended to provide the public with a discussion of the potential EJ impacts of this proposal. The analysis does not form a basis or rationale for any of the actions EPA is proposing in this rulemaking. Executive Order 12898 is discussed in Section XI.J of this preamble.

Overall, the analysis showed that benefits associated with improvements to water quality, wildlife, and human health resulting from reductions in pollutants in surface water and drinking water will accrue to minority and low-income populations at a higher rate under some or all of the proposed regulatory options. Remaining exposures, impacts, costs, and benefits analyzed either accrue at a higher rate to populations which are not minority or low-income, accrue proportionately to all populations, or are small enough that EPA could not conclude whether changes in disproportionate impacts would occur. While the changes in GHGs attributable to the proposed regulatory options are relatively small compared to worldwide emissions, findings from peer-reviewed evaluations demonstrate that actions that reduce GHG emissions are also likely to reduce climate impacts on vulnerable communities, including minority and low-income communities. The methods and findings of the EJA are described in further detail below.

A. Literature Review

EPA conducted a literature review to identify academic research and articles on EJ concerns related to coal-fired power plants. EPA identified four papers that focused on coal-fired power plants in the United States that were directly relevant to this proposed rule. The findings of these papers suggest that coal-fired power plants tend to be in poor, minority, and indigenous communities. Toomey (2013) reported that 78 percent of African Americans in the United States live within a 30-mile radius of a coal-fired power plant.[145] Impacts discussed in the reports included adverse health impacts resulting from air pollutants (*e.g.,* SO_2, NO_X, $PM_{2.5}$) for those living in proximity to coal-fired power plants, climate justice issues resulting from GHG emissions, and risk of impoundment failures for populations living in proximity to coal waste surface impoundments where coal is mined.[146] [147] [148] All these impacts were found in one or more papers to disproportionately impact poor, minority, and indigenous communities. EPA solicits comment on additional literature that discusses EJ impacts related to the specific changes being made to steam electric power plants. For further discussion of the literature review, see section 5 of the EJA.

B. Screening Analysis and Community Outreach

EPA performed a set of screening analyses with the EJSCREENBatch tool to identify the environmental and socioeconomic characteristics of the communities that are expected to be impacted by discharges from steam electric plants via relevant exposure pathways. First, EPA conducted a screening for potential air impacts using one- and three-mile buffers around the facility GIS coordinates. Second, EPA conducted a screening for potential impacts in downstream surface waterbodies using one-, three-, 50-, and 100-mile buffer distances around each waterbody segment downstream of the initial common identifiers (COMIDs) identified for each effluent discharge.[149] Finally, EPA conducted a screening for potential drinking water impacts using ZIP code information for downstream public water systems (PWSs) in the absence of a complete data set of actual service area boundaries for all PWSs.

Using the results of these screening analyses, EPA tiered communities under all three screening analyses to prioritize communities for potential outreach and engagement. To tier the communities, EPA evaluated how many of the following criteria applied to a community's screening results:

- The community has both demographic (minority and low income [150]) indicators and at least one environmental indicator [151] above the 50th percentile nationally or has all environmental indicators and at least one demographic indicator above the 50th percentile nationally;
- The community has two or more demographic and/or environmental indicators above the 80th percentile nationally;
- The community has one or more demographic and/or environmental indicators above the 90th percentile nationally; or
- The community has one or more demographic and/or environmental indicators above the 95th percentile nationally.

Tier 3 communities met one of the above criteria, Tier 2 communities met two or three of the above criteria, and Tier 1 communities met all four of the above criteria. EPA sought to conduct initial outreach meetings with nine communities. Thus, for each of the three screening analyses (air, surface water, and drinking water), EPA selected the top three Tier 1 communities for outreach. For the latter two screening analyses, there were no Tier 1 communities in scope. In these cases,

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[143] IPI (Institute for Policy Integrity). June 2022. *Measuring the Benefits of Power Plant Effluent Regulation: The 2020 Steam Electric Reconsideration Rule and Potential Future Methods.*

[144] U.S. EPA (Environmental Protection Agency). 2016. *Technical Guidance for Assessing Environmental Justice in Regulatory Analysis.* June. Available online at: *www.epa.gov/environmentaljustice/technical-guidance-assessing-environmental-justice-regulatory-analysis.*

[145] Toomey, Diane. 2013. *Coal Pollution and the Fight for Environmental Justice.* Yale Environment 360. June 19. Available online at: *www.e360.yale.edu/features/naacp_jacqueline_patterson_coal_pollution_and_fight_for_environmental_justice.*

[146] Liévanos, R.S., P. Greenberg, and R. Wishart. 2018. *In the Shadow of Production: Coal Waste Accumulation and Environmental Inequality Formation in Eastern Kentucky.* Social Science Research, Vol. 71: pp. 37–55.

[147] Israel, B. 2012. *Coal Plants Smother Communities of Color.* Scientific American. *www.scientificamerican.com/article/coal-plants-smother-communities-of-color/#:~:text=People%20living%20near%20coal%20plants,percent%20are%20people%20of%20color.*

[148] NAACP. 2012. National Association for the Advancement of Colored People. *Coal Blooded: Putting Profits Before People. www.naacp.org/resources/coal-blooded-putting-profits-people.*

[149] Defined as 300 kilometers (~187 miles).

[150] The minority and low-income indicators are derived from EPA's Environmental Justice Screening and Mapping Tool (EJSCREEN). For more information on EJSCREEN's definitions of minority and low income, *see* U.S. EPA. 2019. U.S. Environmental Protection Agency. *EJSCREEN Technical Documentation. www.epa.gov/ejscreen/technical-information-about-ejscreen.*

[151] EPA used environmental indicators from EJSCREEN that include direct and proxy indicators of potential pollution exposures. For more information on the environmental indicators included in EJSCREEN *see* U.S. EPA (2019).

EPA supplemented up to three by adding either the top Tier 2 communities or communities EPA had engaged with prior to the decision to conduct the current rulemaking. A list of communities and selection criteria is presented in Table XIII–1 of this preamble. The communities that EPA engaged with prior to the initiation of the current rulemaking are indicated by a ''YES'' in the Pre-Rule column.

EPA conducted initial outreach to local environmental and community development organizations, local government agencies, and individual community members involved in community organizing in all nine communities. Between May and September of 2022, EPA was able to meet with community members in five of the identified communities either virtually (indicated in the table by ''Virtual Meeting'') or in a hybrid format with some in-person participation (indicated in the table by ''Hybrid Meeting''). While EPA has not been able to hold a virtual or hybrid meeting with the remaining four communities (those indicated in the table as ''Initial Outreach''), EPA is continuing to consider whether and how to engage with these communities. Each meeting began with a presentation providing background information about the rulemaking before opening the meeting for questions and comments from community members.

EPA received a broad range of input from individuals in these communities on regulatory preferences, environmental concerns, human health and safety concerns, economic impacts, cultural/spiritual impacts, ongoing communication/public outreach, and interest in other EPA actions. Two broad themes were conveyed consistently across communities. First, community members conveyed several perceived harmful impacts from steam electric power plants and their desire for more stringent regulations to reduce these harmful impacts. Second, community members expressed the desire for more transparency and communication to overcome their decreasing trust in the regulated power plants and state regulatory agencies and, thus, a corresponding skepticism that their community would be protected from these harmful impacts. In addition to these broad themes, commenters also raised concerns unique to each community. For example, members of the Navajo Nation discussed with EPA the spiritual and cultural impacts to the community from pollution related to steam electric power plants. In Jacksonville, Florida, community members raised concerns regarding tidal flows of pollution upstream and storm surges during extreme weather events which cause additional challenges in their community. More detailed summaries of these meetings are described in section 7.5 of the EJA.

TABLE XIII–1—INITIAL COMMUNITY OUTREACH SELECTION

#	Screening result (plant/waterbody/PWS) [a]	State	Screen	Tier	Pre-Rule [b]	Proposal
1	EIA #667, Northside Generating Station	FL	Air	1		Virtual Meeting.
2	EIA #3297, Wateree Station	SC	Air	1		Initial Outreach.
3	EIA #2442, Four Corners Steam Electric Station	NM	Air	1	YES	Virtual Meeting.
4	COMID 10161978, Ohio River (EIA #6071, Trimble County).	KY	Surface Water	2		Virtual Meeting.
5	COMID 6499098, Etowah River (EIA #703, Plant Bowen).	GA	Surface Water	2		Initial Outreach.
6	COMID 3124250, Rabbs Bayou (EIA #3470, W.A. Parish E.G.S.).	TX	Surface Water	2		Hybrid Meeting.
7	PWSID 84690510, Standing Rock Rural Water System, Fort Yates (EIA #2817, Leland Olds Station).	ND	Drinking Water	2		Initial Outreach.
8	PWSID MI0001800, City of Detroit (EIA #6034, Belle River Power Plant and EIA #1733, Monroe Power Plant).	MI	Drinking Water	2		Initial Outreach.
9	PWSID NC0279010, NC0279030, NC0279040, and NC3079031 Town of Eden, Town of Madison, Dan River Water Inc, Rockingham Co—220 Corridor (EIA #8042, Belews Creek Steam Station).	NC	Drinking Water	3	YES	Hybrid Meeting.

Notes:

[a] Steam electric power plants, surface waters, and PWSs are identified by their U.S. Energy Information Administration (EIA) identification number, National Hydrography Dataset Plus (NHDPlus) V2.1 common identifier (COMID), and Safe Drinking Water Information System (SDWIS) Public Water System ID (PWSID).

[b] While not included in the list of communities for outreach, EPA also met with members of Clean Power Lake County before the supplemental rule announcement to discuss potential EJ impacts of the Waukegan Power Plant, a plant that is retired.

EPA considered all feedback received in these outreach meetings, including feedback regarding the stringency of potential new regulations and negative impacts experienced as a result of steam electric discharges. The proposed rule, if finalized, would result in more stringent limitations that would further reduce negative impacts associated with steam electric discharges. EPA also considered feedback expressing the desire for increased transparency and communication. As discussed in Section XV.C.5 of this preamble, EPA is proposing posting of required reports to a publicly available website to improve transparency. Furthermore, EPA calls attention to the availability of the more recent feature of Enforcement and Compliance History Online (ECHO) called ECHO Notify. ECHO Notify provides weekly email notifications of changes to enforcement and compliance data in ECHO. Notifications are tailored to the geographic locations, facility IDs, and notification options that users select. EPA encourages interested community members to sign up for these alerts. Further information is available on EPA's website at *www.echo.epa.gov/tools/echo-notify.* EPA also encourages individual facilities to work with local communities to foster trust and communication, for example, through text alert systems. Finally, EPA solicits

comment on whether and how the Agency could update its analyses to reflect the site-specific information presented in these meetings.

C. Distribution of Risks

EPA evaluated the distribution of pollutant loadings, estimated human health, and estimated environmental impacts resulting from polluted air, surface water, and drinking water. EPA examined these distributions under both baseline and the regulatory options to identify where current conditions and future improvements may have a disproportionate impact on communities with potential EJ concerns (PEJC). The following sections discuss EPA's methodology and findings.

1. Air

EPA evaluated air quality impacts in terms of changes in warm season maximum daily average 8-hour (MDA8) ozone and average annual $PM_{2.5}$ concentrations, as described in the BCA. EPA used the results of the analysis to further evaluate the distribution of air quality impacts in the EJA to determine whether population groups of concern experience disproportionately high exposures to MDA8 ozone and average annual $PM_{2.5}$ under baseline and Option 3.

The results of EPA's analysis of baseline MDA8 ozone and average annual $PM_{2.5}$ concentrations showed that there are differences in baseline exposures across population groups and area categories (no change, improving, worsening). EPA found that Option 3 results in similar absolute and relative changes in MDA8 ozone and average annual $PM_{2.5}$ exposures across population groups in areas with improving and worsening air quality. The modeled changes in MDA8 ozone and average annual $PM_{2.5}$ exposures generated by Option 3 are relatively small and not expected to have significant impacts on distributional disparities. For more information on the analysis of air quality impacts, see section 9.1 of the EJA.

2. Surface Water

EPA evaluated both immediate receiving waters [152] and downstream surface waters,[153] as described in the EA and BCA.

a. Immediate Receiving Waters

Using results from the immediate receiving water analysis performed in the EA, EPA further evaluated the immediate receiving water impacts in the EJA to determine whether these impacts disproportionately affect population groups of concern. This analysis was done with respect to waters that exceeded benchmarks for national recommended water quality criteria (NRWQC) and maximum contaminant levels (MCLs), benchmarks for sediment biota and piscivorous wildlife, and human health benchmarks.

b. Distribution of Water Quality Impacts

After examining baseline results of the EA where arsenic, cadmium, selenium, or thallium concentrations exceeded benchmark NRWQC and MCL values,[154] EPA's analysis showed that, in communities with immediate receiving waters with pollutant-specific benchmark exceedances, the percent of the population identified as American Indian or Alaskan Native (non-Hispanic) is larger than the national average. This result is driven by baseline exceedances observed in the Unnamed tributary to the Chaco River, which is in the Navajo Nation, an area in which about 98 percent of the population is identified as American Indian or Alaska Native (non-Hispanic). When compared to communities with immediate receiving waters without exceedances, communities with immediate receiving waters with exceedances had larger proportions of the population identifying as African-American (non-Hispanic), American Indian or Alaskan Native (non-Hispanic), Other (non-Hispanic), and Hispanic or Latino. Based on these findings regarding the distribution of population groups of concern in communities with immediate receiving waters with exceedances, EPA concluded that there are PEJC present under the baseline. EPA's analysis of the regulatory options showed that all regulatory options resulted in a reduction in the number of immediate receiving waters with pollutant-specific benchmark exceedances and in the population affected by these exceedances compared to the baseline. Options 3 and 4 generated the largest reductions in immediate receiving waters with exceedances and the affected population relative to the baseline. Furthermore, Options 3 and 4 produced the greatest improvements in the distribution of water quality impacts across population groups of concern relative to the baseline when comparing proportions of these populations to the national average and communities with immediate receiving waters without exceedances. For more information on the results of the water quality impact analysis, see section 9.2.1.1 of the EJA.

c. Distribution of Wildlife Impacts

After examining baseline results of the EA where sediment biota, eagle, and mink impacts exceeded benchmark values, EPA's analysis showed that communities with immediate receiving waters with exceedances had a larger proportion of the population identified as American Indian or Alaskan Native (non-Hispanic) than the national average. Additionally, communities with immediate receiving waters with exceedances under baseline had larger proportions of various population groups of concern than communities with immediate receiving waters without exceedances. Based on these findings regarding the distribution of population groups of concern in communities with immediate receiving waters with exceedances, EPA concluded that there are PEJC present under the baseline. EPA's analysis of wildlife impacts under the regulatory options showed that none of the regulatory options results in increases in the number of immediate receiving waters with exceedances of wildlife- and pollutant-specific benchmarks compared to the baseline. Across the wildlife analyses, Options 3 and 4 generated the largest reductions in the number of immediate receiving waters with exceedances and in the affected population compared to the baseline. Furthermore, relative to the baseline, Options 3 and 4 produced the greatest improvements in the distribution of wildlife impacts across population groups of concern when comparing proportions of these populations to the national average and communities with immediate receiving waters without exceedances. For more information on the analysis of wildlife impacts, see section 9.2.1.2 of the EJA.

d. Distribution of Human Health Risks

After examining baseline results of the EA where fish consumer cohort- and pollutant-specific noncancer hazard quotients and lifetime excess cancer risks exceeded benchmark values,[155] the record indicates that across all fish consumer cohorts, communities with

[152] The immediate receiving water analysis focused on evaluating baseline and regulatory impacts at the point of discharges in surface waters receiving wastewater discharges from steam electric power plants.

[153] The downstream analysis focused on evaluating baseline and regulatory impacts 300 kilometers (~187 miles) downstream from the point of discharges in surface waters receiving wastewater discharges from steam electric power plants.

[154] The IRW Model did not identify any immediate receiving waters with benchmark value exceedances under the baseline for copper, lead, mercury, nickel, and zinc loadings.

[155] Fish consumer cohorts analyzed were child subsistence, child recreational, adult subsistence, and adult recreational fish consumers.

immediate receiving waters with noncancer and cancer exceedances have larger proportions of the population identified as population groups of concern, particularly American Indian or Alaskan Native (non-Hispanic), than the national average. This result is driven by baseline exceedances observed in the Unnamed tributary to the Chaco River, which is in the Navajo Nation. Additionally, communities with immediate receiving waters with noncancer and cancer exceedances have larger proportions of the population identified as population groups of concern than communities with immediate receiving waters without noncancer and cancer exceedances. Based on these findings regarding the distribution of population groups of concern in communities with immediate receiving waters with noncancer and cancer exceedances, EPA concluded that there are PEJC present under the baseline. EPA's analysis under the regulatory options showed human health improvements, in terms of the reduction in the number of immediate receiving waters with noncancer and cancer benchmark exceedances, across fish consumer cohorts. Options 3 and 4 generated the largest reductions in the number of immediate receiving waters with noncancer and cancer exceedances and in the affected population. Additionally, Options 3 and 4 produced the greatest improvements in the distribution of human health impacts across population groups of concern relative to the baseline when comparing proportions of these populations to the national average and communities with immediate receiving waters without exceedances. For more information on the analysis of human health risks, see section 9.2.1.3 of the EJA.

e. Downstream Waters

Using the results from the downstream analysis performed in the BCA, EPA further evaluated the downstream surface water impacts in the EJA to determine whether population groups of concern experience a disproportionate share of noncancer and cancer health effects from exposure to lead, mercury, and arsenic through consuming fish in contaminated downstream surface waters. The results of EPA's analysis are discussed in the following two sections.

f. Distribution of Noncancer Health Impacts

Noncancer health impacts evaluated by EPA were cognitive and neurological impacts—expressed as total IQ points under baseline and avoided IQ point losses under the regulatory options—among children exposed to lead and mercury through consuming fish at subsistence and recreational consumption rates caught in contaminated surface waters. The distribution of impacts within the two consumer cohorts was evaluated by racial and ethnic group (White, Black, Hispanic, Asian, American Indian and Alaskan Native, and Other) and by income group (below the poverty line or not below the poverty line). When comparing across income groups and racial and ethnic groups, baseline results of the analysis of neurological and cognitive health impacts from exposure to lead and mercury showed that population groups of concern in the children of subsistence and recreational cohorts had a proportional or larger share of total baseline IQ points compared to their share of the exposed population. The results of the analysis indicated no disparate IQ impacts to minority and low-income groups under baseline.

Based on EPA's evaluation of the four regulatory options, each of the regulatory options would result in avoided IQ point losses for children of subsistence fishers and recreational fishers who regularly consume fish caught in local water compared to baseline across all racial, ethnic, and income groups in the children of both subsistence and recreational consumer cohorts. While children of all racial and ethnic population groups in the subsistence and recreational cohorts are expected to experience avoided IQ point losses under the regulatory options compared to baseline, these improvements were relatively small and did not change the distribution of IQ points compared to baseline. For more information on the analysis of noncancer health impacts in downstream surface waters, see section 9.2.2.1 and section 9.2.2.2 of the EJA.

g. Distribution of Cancer Health Impacts

EPA evaluated national cancer health impacts—in terms of cancer cases (any type of cancer) under baseline and avoided cancer cases (any type of cancer) under the regulatory options—among adult subsistence and recreational fishers exposed to arsenic through fish consumption. The distribution of impacts within the two fisher cohorts was evaluated by racial and ethnic group and by income group.

When comparing total cancer cases across racial and ethnic groups, the results of the baseline analysis showed that population groups of concern (except for those in the Black population group) in the adult subsistence fisher cohort had a larger proportion of cancer cases compared to their share of the exposed population. In contrast, when comparing total cancer cases across income groups, the results of the baseline analysis showed that those below the poverty line in both the adult subsistence and recreational fisher cohorts had a smaller proportion of cancer cases compared to their share of the exposed population, while those not below the poverty line in both fisher cohorts had a larger proportion of cancer cases. The results of the analysis indicate PEJC in the baseline related to the distribution of cancer health impacts when comparing across racial and ethnic population groups, but not across income groups.

Based on EPA's evaluation of the four regulatory options, each of the regulatory options would result in avoided cancer cases compared to baseline across all racial, ethnic, and income population groups in both the adult subsistence and recreational fisher cohorts. While all racial, ethnic, and income population groups in the adult subsistence and recreational fisher cohorts were expected to experience avoided cancer cases under the regulatory options compared to baseline, these improvements were relatively small and did not change the distribution of total cancer cases compared to baseline. For more information on the analysis of cancer health impacts in downstream surface waters, see section 9.2.2.3 of the EJA.

3. Drinking Water

Using the results from the drinking water analysis performed in the BCA, EPA further evaluated downstream drinking water impacts in the EJA to determine whether population groups of concern served by potentially affected drinking water systems experience a disproportionate share of bladder cancer cases from exposure to TTHM. In the BCA, EPA modeled baseline incremental TTHM concentrations and bladder cancer cases attributable to steam electric discharges.[156] Since EPA evaluated only the changes in TTHM concentrations and avoided bladder cancer cases and deaths attributable to steam electric discharges in the BCA, in this analysis, EPA only evaluated whether the distribution of exposures and health effects indicated PEJC under the incremental changes resulting from the regulatory options. The results of

[156] Background TTHM concentrations and bladder cancer cases attributable to sources other than steam electric discharges were not modeled under the baseline but would not impact the analysis of incremental changes as discussed in the BCA.

EPA's analysis are discussed in the following two sections.

a. Distribution of TTHM Exposures and Resulting Avoided Bladder Cancer Cases and Deaths

Based on EPA's evaluation of the four regulatory options, EPA's record shows that all regulatory options would result in decreases in TTHM concentrations and cases of bladder cancer and deaths across potentially affected drinking water systems. Of the regulatory options EPA evaluated, across the states with affected systems, Option 4 generated the greatest reductions in TTHM concentrations and bladder cancer cases and deaths. Under all of the regulatory options, for those potentially affected systems with modeled reductions in TTHM concentrations and in bladder cancer cases and deaths, most serve populations that have a higher proportion of at least one population group of concern as compared to the national average, with the largest proportion serving populations with two population groups of concern above the national average. Additionally, EPA found that states with affected systems serving populations with one population group of concern above the national average experienced the largest median reductions in TTHM concentrations and bladder cancer cases and deaths. Furthermore, EPA found that the magnitude of the median change in TTHM and bladder cancers decreased with the more stringent regulatory options in communities with one, two, or three or more population groups of concern above the national average. EPA determined that this was not due to there being fewer reductions in TTHM concentrations and in bladder cancer cases and excess bladder cancer deaths with more stringent options, but rather that more new states with affected systems experiencing smaller changes were being added under the more stringent options. Therefore, Option 4 still generated the greatest improvements across analyses. For more information of the analysis of drinking water impacts, see sections 9.3.1 and 9.3.2 of the EJA.

4. Cumulative Risks

In the EA, EPA expanded upon its assessment of human health impacts from individual pollutant exposures to include an evaluation of potential human health risks from exposures to mixtures of pollutants present in steam electric power plant discharges. Using information on human health risks related to pollutant mixtures from the Agency for Toxic Substances and Disease Registry (ATSDR), EPA estimated potential human health risks among fish consumer cohorts exposed to pollutant mixtures of concern—Arsenic-Cadmium-Lead (As-Cd-Pb), Zinc-Lead (Zn-Pb), and Methylmercury-Lead (MeHg-Pb)—from consuming fish caught in potentially affected immediate receiving waters of steam electric power plants. EPA used the results of this analysis to assess the distribution of potential human health risks across population groups of concern in communities with immediate receiving waters with human health endpoint-specific Hazard Index (HI) exceedances.

After examining baseline results of the EA where human health endpoint-specific HI values were greater than 1, the record indicates that across mixtures of concern and fisher cohorts, EPA found that in communities with immediate receiving waters with exceedances there are larger proportions of the population identified as groups of concern, particularly American Indian or Alaskan Native (non-Hispanic), than the national average. This result is driven by baseline exceedances observed in the Unnamed tributary to the Chaco River, which is in the Navajo Nation. Additionally, the record indicates that across mixtures of concern and cohorts, communities with immediate receiving waters had larger proportions of various population groups of concern under the baseline than communities with immediate receiving waters without exceedances. Based on these findings regarding the distribution of population groups of concern in communities with immediate receiving waters with exceedances, EPA concluded that there are PEJC present under the baseline.

EPA's analysis under the regulatory options showed that, across mixture of concern and cohorts, none of the regulatory options results in increases in the number of immediate receiving waters with exceedances and in the population affected compared to the baseline. Across mixtures of concern and cohorts, Options 3 and 4 most often generated the largest reductions relative to the baseline in immediate receiving water with exceedance and in the population affected. Additionally, Options 3 and 4 most often produced the greatest proportional reductions in the distribution of human health impacts for population groups of concern in communities with immediate receiving waters with exceedances compared to the national average and communities with immediate receiving waters without exceedances. For more information on the analysis of potential cumulative human health risks, see section 9.4 of the EJA.

D. Distribution of Benefits and Costs

EPA examined the estimated benefits and costs of the regulatory options in this proposal for potential differences in how they are distributed across socioeconomic groups, in addition to evaluating the distribution of exposures and health impacts discussed above. Office of Management and Budget (OMB) Circular A–4, which implements E.O. 12866, states that regulatory analyses ''should provide a separate description of distributional effects (*i.e.,* how both benefits and costs are distributed among sub-populations of particular concern).'' As discussed below, EPA research demonstrates that climate change impacts are likely to accrue to minority and low-income populations, but other benefits and costs under the proposed rule may not have substantial impacts.

EPA began its evaluation of benefits with a screening of the benefits categories. For Option 3, at both three percent and seven percent discount rates, approximately 99 percent of monetized benefits accrued from reductions in air pollution due to estimated shifts in electric generation resulting from the incremental costs of the proposed rule. Furthermore, these air benefits were always comprised of approximately a 3-to-1 ratio of conventional air pollutant health benefits to GHG benefits.[157] Thus, while EPA evaluated a number of exposures and endpoints for disproportionate baseline impacts, the Agency screened these two benefit categories through this initial comparison for further evaluation.

With respect to GHG benefits, scientific assessments and Agency reports produced over the past decade by the U.S. Global Change Research Program,[158] [159] the Intergovernmental Panel on Climate Change,[160] [161] [162] [163]

[157] EPA scaled the air benefits to other regulatory options based on total costs.

[158] USGCRP, 2018. Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 1515 pp. *doi.org/10.7930/NCA4.2018.*

[159] USGCRP, 2016. The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment. Crimmins, A., J. Balbus, J.L. Gamble, C.B. Beard, J.E. Bell, D. Dodgen, R.J. Eisen, N. Fann, M.D. Hawkins, S.C. Herring, L. Jantarasami, D.M. Mills, S. Saha, M.C. Sarofim, J. Trtanj, and L. Ziska, Eds. U.S. Global Change Research Program, Washington, DC, 312 pp. *www.dx.doi.org/10.7930/J0R49NQX.*

[160] Oppenheimer, M., M. Campos, R.Warren, J. Birkmann, G. Luber, B. O'Neill, and K. Takahashi,

and the National Academies of Science, Engineering, and Medicine [164] [165] provide evidence that the impacts of climate change raise PEJC. These reports conclude that poorer or predominantly non-White communities can be especially vulnerable to climate change impacts because they tend to have limited adaptive capacities, are more dependent on climate-sensitive resources such as local water and food supplies, or have less access to social and information resources. Some communities of color, specifically populations defined jointly by ethnic/racial characteristics and geographic location, may be uniquely vulnerable to climate change health impacts in the United States.

EPA recently conducted a peer-reviewed analysis of the distribution of climate change impacts. EPA (2021) evaluated the disproportionate risks to socially vulnerable populations (defined based on age, income, education, race, and ethnicity) associated with six impact categories: air quality and health, extreme temperature and health, extreme temperature and labor, coastal flooding and traffic, coastal flooding and property, and inland flooding and property.[166] EPA calculated risks for each socially vulnerable group relative to its ''reference population'' (all individuals outside of each group) for scenarios with 2 °C of global warming or 50 centimeters of sea level rise. The estimated risks were based on current demographic distributions in the contiguous United States. EPA (2021) includes findings [167] that the following groups are more likely than their reference population to currently live in areas with:

- The highest increases in childhood asthma diagnoses from climate-driven changes in $PM_{2.5}$ (low-income, Black and African American, Hispanic and Latino, and Asian populations);
- The highest percentage of land lost to inundation (low-income and American Indian and Alaska Native populations);
- The highest increases in mortality rates due to climate-driven changes in extreme temperatures (low-income and Black and African American populations);
- The highest rates of labor hour losses for weather-exposed workers due to extreme temperatures (low-income, Black and African American, American Indian and Alaska Native, Hispanic and Latino, and Pacific Islander populations);
- The highest increases in traffic delays associated with high-tide flooding (low-income, Hispanic and Latino, Asian, and Pacific Islander populations); and
- The highest damages from inland flooding (Pacific Islander populations).

For further discussion of the impacts analyzed in U.S. EPA (2021) and other peer-reviewed evaluations, see section 10.1.1 of the EJA.

EPA notes that the changes in GHG emissions attributable to the proposed regulatory options are relatively small compared to worldwide emissions. Nevertheless, the findings of peer-reviewed evaluations demonstrate that actions that reduce GHG emissions are likely to reduce climate impacts on vulnerable communities such as minority and low-income populations.

With respect to conventional air pollutant health benefits, the current EPA modeling methodology results in benefits that are proportional to exposures. In other words, the distributional findings of air pollutant exposures discussed above are the same findings EPA has for this benefit category: exposure and health benefit improvements and degradations attributable to this proposal will be proportionately experienced by all demographic populations evaluated. However, there are several important nuances and caveats to this conclusion owing to differences in vulnerability and health outcomes across population subgroups. For example, there is some information suggesting that the same $PM_{2.5}$ exposure reduction will reduce the hazard of mortality more so in Black populations than in White populations.[168] [169] In addition, demographic-stratified information relating $PM_{2.5}$ and ozone to other health effects and valuation estimates is currently lacking.

With respect to costs, EPA notes that the impacts on ratepayers will depend on the degree to which compliance costs are passed through to electricity consumers via higher electricity rates. In general, lower-income households spend less, in the absolute, on energy than higher-income households, but energy expenditures represent a larger share of their income. Therefore, electricity price increases tend to have a relatively larger effect on lower-income households. Further discussion of these disparities is provided in

2014: Emergent risks and key vulnerabilities. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L.White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 10391099.

[161] Porter, J.R., L. Xie, A.J. Challinor, K. Cochrane, S.M. Howden, M.M. Iqbal, D.B. Lobell, and M.I. Travasso, 2014: Food security and food production systems. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L.White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 485–533.

[162] Smith, K.R., A.Woodward, D. Campbell-Lendrum, D.D. Chadee, Y. Honda, Q. Liu, J.M. Olwoch, B. Revich, and R. Sauerborn, 2014: Human health: impacts, adaptation, and co-benefits. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L.White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 709–754.

[163] IPCC (Intergovernmental Panel on Climate Change), 2018. Global Warming of 1.5 °C, An IPCC Special Report on the impacts of global warming of 1.5 °C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. In Press.

[164] National Research Council. 2011. America's Climate Choices. Washington, DC: The National Academies Press. *www.doi.org/10.17226/12781.*

[165] NASEM. 2017. Communities in Action: Pathways to Health Equity. Washington, DC: The National Academies Press. *www./doi.org/10.17226/24624.*

[166] U.S. EPA (Environmental Protection Agency). 2021. *Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts.* U.S. Environmental Protection Agency, EPA 430–R–21–003.

[167] EPA (2021) also noted that American Indian and Alaska Native individuals may place a high value on risks to subsistence, cultural, and other natural resources that were not explored in the report. This is consistent with concerns raised by tribal community members as part of the outreach discussed above.

[168] U.S. EPA (2019). Integrated Science Assessment (ISA) for Particulate Matter (Final Report). U.S. Environmental Protection Agency, Office of Research and Development, Center for Public Health and Environmental Assessment. Research Triangle Park, NC. U.S. EPA. EPA/600/R–19/188. December 2019. Available at: *www.epa.gov/naaqs/particulate-matter-pm-standards-integrated-science-assessments-current-review.*

[169] U.S. EPA (2022). Supplement to the 2019 Integrated Science Assessment for Particulate Matter (Final Report). U.S. Environmental Protection Agency, Office of Research and Development, Center for Public Health and Environmental Assessment. Research Triangle Park, NC. U.S. EPA. EPA/600/R–22/028. May 2022. Available at: *www.epa.gov/isa/integrated-science-assessment-isa-particulate-matter.*

section 10.2 of the EJA. EPA estimated the potential impacts of incremental ELG compliance costs on households' utility bills based on average electricity consumption and assuming a worst-case scenario where all costs are passed through to consumers. EPA estimated that the proposed rule corresponds to an average increase of $0.63 per household per year, with a range of $0.09 to $1.31 per year across NERC regions. These cost increases are too small to indicate the potential for significant direct impacts to household electricity consumers.[170]

E. Results of the Analysis

Overall, the analysis showed that benefits associated with improvements to water quality, wildlife, and human health resulting from reductions in pollutants in surface water and drinking water will accrue to minority and low-income populations at a higher rate under some or all of the proposed regulatory options. Remaining exposures, impacts, costs, and benefits analyzed either accrue at a higher rate to populations which are not minority or low-income, accrue proportionately to all populations, or are small enough that EPA could not conclude whether disproportionate positive or negative impacts from the options being considered would occur. While the changes in GHGs attributable to the proposed regulatory options are relatively small compared to worldwide emissions, findings from peer-reviewed evaluations demonstrate that actions that reduce GHG emissions are also likely to reduce climate impacts on vulnerable communities, including minority and low-income communities.

F. Solicitations on Environmental Justice Analysis and Community Outreach

EPA solicits comment on the data, analysis, and results of the EJA. EPA solicits comment on additional data or methods that could be used to further expand the EJA and better capture the potential impacts of the proposed rule. In light of the considerations EPA discussed for conventional air pollution health benefits, EPA solicits comment on whether and how the Agency could further evaluate the distributional impacts of this benefit category in a final rule analysis. EPA also solicits comment on any regulatory options not explicitly analyzed that would further benefit communities with PEJC and could be built into any final rule analyses.

EPA solicits comment on how the Agency should continue to engage with the communities from Table XIII–1 of this preamble that were included in the initial outreach. EPA asks that comments suggesting additional outreach activities, especially those that might occur during the public comment period, be provided early in the comment period to allow the Agency sufficient time to plan and execute any outreach. EPA solicits comment on whether EPA should conduct in-person or hybrid public hearings in any or all of these communities during the public comment period, in addition to the two nationwide virtual public hearings already planned. EPA solicits comment on the best means for maximizing public participation at any such meetings. EPA also solicits comment on other communities that may warrant additional outreach and engagement based on the results of the full-scale analysis or for reasons not well documented in the EJA due to site-specific information that was not readily available to the Agency.

XIV. Development of Effluent Limitations and Standards

This section describes the statistical methodology used to calculate the long-term averages, variability factors, and proposed BAT limitations and PSES. The effluent limitations and standards are based on long-term average effluent values and variability factors that account for variation in treatment performance of the model technology. The proposed effluent limitations and/or standards, collectively referred to in the remainder of this section as ''limitations,'' for pollutants for each technology option are provided as ''daily maximums'' and ''maximums for monthly averages.'' Definitions provided in 40 CFR 122.2 state that the daily maximum limitation is the ''highest allowable 'daily discharge,' '' and the maximum for monthly average limitation is the ''highest allowable average of 'daily discharges' over a calendar month, calculated as the sum of all 'daily discharges' measured during a calendar month divided by the number of 'daily discharges' measured during that month.'' Daily discharges are defined to be the '' 'discharge of a pollutant' measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.'' In this section, the term ''option long-term average'' and ''option variability factor'' refer to the long-term averages and variability factors for technology options for an individual wastestream rather than the regulatory options described in Section VII of this preamble.

A. Criteria Used To Select Data as the Basis for the Limitations and Standards

In developing effluent limitations guidelines and standards for any industry, EPA qualitatively reviews all the data before selecting data that represents proper operation of the technology that forms the basis for the limitations. EPA typically uses four criteria to assess the data.

The first criterion requires that the plants have the model treatment technology and demonstrate consistently diligent and optimal operation. Application of this criterion typically eliminates any plant with treatment other than the model technology. EPA determines whether a plant meets this criterion based upon site visits; discussions with plant management; and/or comparison to the characteristics, operation, and performance of treatment systems at other plants. EPA often contacts plants to determine whether data submitted were representative of normal operating conditions for the plant and equipment. As a result of this review, EPA typically excludes the data when the plant has not optimized the performance of its treatment system to the degree that represents the appropriate level of control (*e.g.,* BAT).

The second criterion requires that the influents and effluents from the treatment components represent typical wastewater from the industry, without incompatible wastewater from other sources. Application of this criterion results in EPA selecting plants where the commingled wastewaters did not result in substantial dilution, un-equalized slug loads resulting in frequent upsets and/or overloads, more concentrated wastewaters, or wastewaters with different types of pollutants than those generated by the wastestream for which EPA is proposing effluent limitations.

The third criterion ensures that the pollutants are present in the influent at sufficient concentrations to evaluate treatment effectiveness. To evaluate whether the data meet this criterion for inclusion as a basis of the limitations, EPA uses the long-term average test for plants where EPA possesses paired influent and effluent data (see section 13 of the 2015 TDD for details of the long-term average test). The test measures the influent concentrations to ensure a pollutant is present at a sufficient concentration to evaluate treatment effectiveness. If a data set for a pollutant fails the test (*i.e.,* pollutant

[170] EPA notes that other electricity consumers (*e.g.,* industrial consumers) could also face increased electricity prices.

not present at a treatable concentration), EPA excludes the data for that pollutant at that plant when calculating the limitations.

The fourth criterion requires that the data are valid and appropriate for their intended use (*e.g.,* the data must be analyzed with a sufficiently sensitive method). Also, EPA does not use data associated with periods of treatment upsets because these data would not reflect the performance of well-designed and well-operated treatment systems. In applying the fourth criterion, EPA may evaluate the pollutant concentrations, analytical methods and the associated quality control/quality assurance data, flow values, mass loading, plant logs, and other available information. As part of this evaluation, EPA reviews the process or treatment conditions that may have resulted in extreme values (high and low). Because of this review, EPA may exclude data associated with certain time periods or other data outliers that reflect poor performance or analytical anomalies by an otherwise well-operated site.

EPA also applies the fourth criterion when reviewing data corresponding to the initial commissioning period for treatment systems. Most industries incur commissioning periods during the adjustment period associated with installing new treatment systems. During this acclimation and optimization process, the effluent concentration values tend to be highly variable with occasional extreme values (high and low). This occurs because the treatment system typically requires some ''tuning'' as the plant staff and equipment and chemical vendors work to determine the optimum chemical addition locations and dosages, vessel hydraulic residence times, internal treatment system recycle flows (*e.g.,* filter backwash frequency, duration and flow rate, return flows between treatment system components), and other operational conditions like clarifier sludge wasting protocols. It may also take several weeks or months for treatment system operators to gain expertise on operating the new treatment system, which also contributes to treatment system variability during the commissioning period. After this initial adjustment period, the systems should operate at steady state with relatively low variability around a long-term average over many years. Because commissioning periods typically reflect one-time operating conditions unique to the first time the treatment system begins operation, EPA generally excludes such data in developing the limitations.[171]

B. Data Selection for Each Technology Option

For FGD wastewater and BA transport water, the preferred regulatory option proposes zero discharge of pollutants; therefore, no effluent concentration data were used to develop the limitations for these wastestreams.[172] As described in Section VII of this preamble, EPA is proposing that permitting authorities establish limitations for discharges of pollutants in SI decant wastewater, SI dewatering wastewater, and legacy wastewater on a case-by-case basis. Thus, no effluent concentration data were used to set national effluent limitations. For the limitations on CRL based on the chemical precipitation technology option, EPA is proposing to transfer the limitations calculated based on the 2015 and 2020 rule chemical precipitation technology option for FGD wastewater because while EPA does not have effluent data for leachate from plants that employ chemical precipitation technology on CRL, EPA's record demonstrates that CRL is chemically similar to FGD wastewater and amenable to such treatment. EPA used the same approach in the 2013 proposed rule and in the final 2015 rule for NSPSs for CRL, and the Agency solicits comment on additional pilot tests or full-scale installations that could be used in lieu of, or to supplement, this approach.

C. CRL

EPA is proposing limitations on mercury and arsenic in leachate based on chemical precipitation. As discussed in Section VII.B.3 of this preamble, some discharges of leachate may also occur through groundwater. EPA solicits comment on whether site-specific variability in the subsurface soils, sorbents, and other characteristics could result in lowering measured concentrations of the two chosen indicator pollutants (mercury and arsenic) below the proposed CRL limitations without actually treating the full suite of pollutants that EPA proposes chemical precipitation is able to treat. Thus, for leachate discharged through groundwater, EPA solicits comment on whether the Agency should calculate daily and monthly limitations for these other pollutants in Table XIV–1.

TABLE XIV–1—OTHER POLLUTANTS TREATED BY CHEMICAL PRECIPITATION [173]

Antimony	Magnesium
Barium	Manganese
Beryllium	Molybdenum
Cadmium	Nickel
Chromium	Thallium
Cobalt	Titanium
Copper	Vanadium
Lead	Zinc

Should EPA elect to calculate daily and monthly limitations for the pollutants in Table XIV–1, EPA solicits comment on whether to use the same data sets and methods used to calculate limitations for arsenic and mercury that the Agency used in the 2015 rule record. Specifically, EPA solicits comment on the data set of FGD wastewater treated by chemical precipitation with regard to each of these pollutants. EPA also solicits comment on the methodology described in the 2015 and 2020 rule records, which consists of interim steps of calculating a long-term average and variability factors. EPA also solicits comment on data where leachate was treated in a pilot or full-scale chemical precipitation system that could be used in the calculation of such limitations either in lieu of, or in addition to, the data discussed above.

XV. Regulatory Implementation

A. Continued Implementation of Existing Limitations and Standards

EPA has continually stressed, since the announcement of this supplemental rulemaking, that the 2015 and 2020 limitations (or lack thereof) continue to apply.[174] In the sections below, EPA discusses considerations for permitting authorities and regulated entities as they continue to implement existing

[171] Examples of conditions that are typically unique to the initial commissioning period include operator unfamiliarity or inexperience with the system and how to optimize its performance; wastewater flow rates that differ significantly from engineering design, altering hydraulic residence times, chemical contact times, and/or clarifier overflow rates, and potentially causing large changes in planned chemical dosage rates or the need to substitute alternative chemical additives; equipment malfunctions; fluctuating wastewater flow rates or other dynamic conditions (*i.e.,* not steady state operation); and initial purging of contaminants associated with installing the treatment system, such as initial leaching from coatings, adhesives, and susceptible metal components. These conditions differ from those associated with the restart of an already commissioned treatment system, like that which may occur from a treatment system that has undergone either short or extended duration shutdown.

[172] This is also true for some of the technologies EPA solicits comment on for CRL, SI decant wastewater, SI dewatering wastewater, and legacy wastewater.

[173] The pollutants treated by chemical precipitation are discussed in Section 8 of the TDD.

[174] 86 FR 41801 (August 3, 2021).

regulations and look ahead to the regulations in this proposal.

1. Reaffirmation of Expectation That Requirement That FGD and BA Transport Water BAT Limitations Apply ''as Soon as Possible'' Requires Careful Consideration of the Soonest Date That the Discharger Can Meet the Limitations

EPA reaffirms that permitting authorities must continue to write permits that include the current 2015 and 2020 rule BAT limitations, whether as part of permit renewals or permit modifications. Similarly, permittees must meet applicable permit limitations as soon as possible. EPA stresses that the Agency did not issue a postponement rule for the 2020 rule FGD wastewater and BA transport water BAT limitations as it did in 2017 for the 2015 rule. The 2017 rule postponed the earliest compliance dates of the 2015 rule for FGD wastewater and BA transport water to November 2020 to ''preserve the status quo for FGD wastewater and bottom ash transport water until EPA completes its next rulemaking.'' [175] This made sense at the time because EPA had received new information in petitions suggesting that the 2015 rule limitations could not be met with the 2015 BAT technology basis.[176] In contrast, EPA's 2020 rulemaking generally reaffirmed, and provided further flexibilities for, the technology bases established in the 2015 rule. There is no basis in the record indicating that the limitations finalized in 2020 are not available or economically achievable, and thus there is no reason for EPA to postpone their implementation. Instead, EPA focused on progress toward eliminating discharges, consistent with CWA section 301(b)(2)(A). Thus, EPA's announcement of this supplemental rulemaking stated that ''the pollutant reductions accomplished by the existing Rules will occur while the Agency engages in rulemaking to consider more stringent requirements'' (86 FR at 41802, August 3, 2021). This is consistent with the CWA's structure of progressively more stringent limitations pushing technological advances over time.

Since EPA did not postpone the earliest compliance dates, permitting authorities should not establish an ''as soon as possible'' date that is anything other than as soon as possible for the selected technology. For example, where an applicant provides site-relevant information on its biological treatment system that demonstrates it can meet limitations by 2023, it would not be appropriate for the applicant to request an ''as soon as possible'' date that is later by using as an ''other factor'' the fact that EPA is currently undergoing a supplemental rulemaking. This would serve to further postpone compliance with limitations intended to reflect technological advances since promulgation of steam electric ELGS in 1982. EPA also notes that the Agency is soliciting comment in the sections above on alternative flexibilities such as alternative formulations of an early adopter subcategory, one of which may include plants that have already contracted for, but not yet installed, biological treatment. Though EPA solicits comment on various potential permutations of any final rule, the Agency is not changing or postponing the existing 2020 rule. Thus, anything but steadfast implementation of the current 2020 rule limitations at this time is not warranted.

In some cases, however, a facility may not yet have contracted for a specific technology and may be considering alternatives. In such circumstances, a permitting authority may consider the timeframes of more advanced technologies when determining the ''as soon as possible'' date. For example, if a permit applicant submitted timeframes for both a ZVI system that could be operational in 2024 and an alternative consisting of plant modifications to recycle wastewater and operate zero discharge by 2025, it would be reasonable for the permitting authority to set an ''as soon as possible'' date for the facility to eliminate its discharge in 2025.[177]

Similar parallels can be seen with BA transport water. Limitations based on a high recycle rate system should still be included in a permit with a date that is ''as soon as possible'' to meet the site-specific purge limitation. If a facility has not yet contracted for a technology and is deciding between a dry handling system (*e.g.,* pneumatic) and a high recycle rate system, it would be reasonable for the permitting authority to consider the longer timeframe necessary for the dry handling system.

2. Reaffirmation That CRL and Legacy Wastewater BAT Limitations Require a Site-Specific BPJ Analysis and Careful Consideration of Technologies Beyond Surface Impoundments

Under current law, permitting authorities must continue to conduct BPJ analyses and establish TBELs pursuant to 40 CFR 125.3(c)(2) and (3) for BA purge water, CRL,[178] and legacy wastewater unless and until EPA promulgates nationwide BAT. In conducting these analyses, EPA has discussed several technologies in the 2015, 2020, and current proposed rule TDDs and preambles that permitting authorities may consider or select as the basis for TBELs. Where these technologies are included in a BPJ analysis, they must be evaluated by the permitting authority pursuant to the factors set forth in section 125.3(d)(3).[179] Furthermore, as EPA notes in the discussion of FGD wastewater above, there may be multiple, separate legacy wastewaters at a single plant. Thus, in some cases, permitting authorities may have to decide whether these wastewaters should receive separate limitations.[180] Due to the ongoing rulemaking, EPA also recommends, but is not requiring, that permits issued or modified between this proposal and any final rule contain a reopener clause in accordance with 40 CFR 122.62(a)(7) and 124.5.

3. Consideration of Late Notice of Planned Participation

In Section VII of this preamble above, EPA discussed the proposed retention of the subcategory for EGUs permanently ceasing coal combustion by 2028. EPA also solicited comment on extending the period for filing a NOPP for this subcategory. EPA also solicits comment on whether this extended period should be available to LUEGUs and high FGD flow plants. Any final rule would not be promulgated until 2024. Therefore, the effect of removing these subcategories in a final rule would be that the three impacted plants of which EPA is aware

[175] U.S. EPA (Environmental Protection Agency). 2017. *Fact Sheet: Postponement of Certain Compliance Dates for the Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Industry*. EPA 823–S–17–001. September. Available online at: *www.epa.gov/sites/default/files/2017-09/documents/steam-electric-elg_final_postpone-compliance-dates_fact-sheet_sept-2017.pdf*.

[176] EPA notes that upon review in the 2020 rule record, these suggestions were found to be without merit.

[177] Note that a decision between biological vendors or between a biological and ZVI vendor with essentially the same performance would not warrant a later date just because one vendor cannot complete its system until a later date.

[178] For CRL discharged via groundwater, EPA notes that this is a technology-based CWA requirement—a separate and distinct requirement from any CCR rule corrective action requirements which may apply.

[179] Consistent with section 304(b)(2)(B) of the CWA, these consist of: (i) The age of equipment and facilities involved; (ii) The process employed; (iii) The engineering aspects of the application of various types of control techniques; (iv) Process changes; (v) The cost of achieving such effluent reduction; and (vi) Non-water quality environmental impact (including energy requirements).

[180] Furthermore, permitting authorities could determine that more stringent water quality-based effluent limitations are needed to achieve water quality standards.

would still be required to meet any permitted subcategory limitations presently, and in the next permit renewal these plants would be required to meet the zero-discharge limitations for FGD wastewater in this proposal. Given the five-year permit cycle and assuming implementation through permitting immediately after promulgation of the final rule in 2024, the ''no later than'' date would be December 31, 2029. Thus, under the flexibility of the permitting authority to consider ''other factors'' under section 423.11(t), these plants could, subject to permitting authority discretion, effectively have one additional year to discharge under the current, less stringent limitations than plants in the existing subcategory for EGUs permanently ceasing coal combustion by 2028. EPA solicits comment on the reasonableness of this possible result, including whether these plants should be required to file a NOPP for limitations under the subcategory for EGUs permanently ceasing coal combustion by 2028, should they elect to retire.

B. Implementation of New Limitations and Standards

The limitations and standards in this proposed rule would apply to discharges from steam electric power plants through incorporation into NPDES permits issued by EPA and authorized states under CWA section 402, and through pretreatment programs under CWA section 307. NPDES permits or control mechanisms issued after a final rule's effective date must incorporate the ELGs, as applicable. Where permits with the 2015 and/or 2020 rule limitations have already been issued, EPA expects that any final rule requirements would be incorporated in the next permit. Also, under CWA section 510, states can require effluent limitations under state law as long as they are no less stringent than the requirements of any final rule. Finally, in addition to requiring application of the technology-based ELGs in any final rule, CWA section 301(b)(1)(C) requires the permitting authority to impose more stringent effluent limitations, as necessary, to meet applicable water quality standards.

1. Availability Timing of Proposed Requirements

The direct discharge limitations in this rule apply only when implemented in an NPDES permit issued to a discharger. Under the CWA, the permitting authority must incorporate these ELGs into NPDES permits as a minimum level of control. The proposed rule provides the plant's permitting authority with discretion to determine the date when the new effluent limitations for FGD wastewater and BA transport water would apply to a given discharger. EPA proposes that the earliest date these new limitations could apply to a discharger is the effective date of any final rule. Except for the limitations in certain subcategories, for any finalized effluent limitation that is specified to become applicable after the effective date, the specified date must be as soon as possible after that date, but in no case later than December 31, 2029. For dischargers subject to less stringent limitations based on certifications that they qualify for a subcategory based on permanent cessation of coal combustion, however, EPA proposes to require permitting authorities to put the more stringent zero-discharge limitations for FGD wastewater and BA transport water in the existing permit effective the day after the date of closure. This way, EPA would ensure that dischargers would not benefit from less stringent limitations based on closure by a certain date if that closure does not occur. This proposal would not impact dischargers choosing to meet the 2020 VIP effluent limitations for FGD wastewater; the date for meeting those limitations is December 31, 2028.

Pretreatment standards, unlike effluent limitations, are directly enforceable and must specify a time for compliance not to exceed three years from the date of promulgation under CWA section 307(b)(1). Under EPA's General Pretreatment Regulations for Existing and New Sources, POTWs with flows in excess of five MGD must develop pretreatment programs meeting prescribed conditions. These POTWs have the legal authority to require compliance with applicable pretreatment standards and control the introduction of pollutants to the POTW through permits, orders, or similar means. POTWs with approved pretreatment programs act as the control authorities for their industrial users. Among the responsibilities of the control authority are the development of the specific discharge limitations for the POTW's industrial users. Because pollutant discharge limitations in categorical pretreatment standards may be expressed as concentrations or mass limitations, in many cases, the control authority must convert the pretreatment standards to limitations applicable to a specific industrial user and then include these in POTW permits or another control instrument.

Regardless of when a plant's NPDES permit is ready for renewal, EPA recommends that each plant immediately begin evaluating how it intends to comply with the requirements of any potential final rule. In cases where significant changes in operation are appropriate, EPA recommends that the plant discuss such changes with its permitting authority and evaluate appropriate steps and a timeline for the changes as soon as any final rule is promulgated, even before the permit renewal process.

The ''as soon as possible'' date is the effective date of any final rule, unless the permitting authority determines another date after receiving relevant information submitted by the discharger.[181] The proposed rule would not revise the specified factors permitting authorities must consider in determining the as soon as possible date under the 2015 and 2020 rules. Based on receiving relevant information from the discharger, the NPDES permitting authority may determine a different date is ''as soon as possible'' within the implementation period, using the factors below:

(1) Time to expeditiously plan (including to raise capital), design, procure, and install equipment to comply with the requirements of the final rule.

(2) Changes being made or planned at the plant in response to GHG regulations for new or existing fossil fuel-fired plants under the CAA, as well as regulations for the disposal of coal combustion residuals under subtitle D of the RCRA.

(3) For FGD wastewater requirements only, an initial commissioning period to optimize the installed equipment.

(4) Other factors as appropriate.

The ''as soon as possible'' date determined by the permitting authority may or may not be different for each wastestream. The NPDES permitting authority should provide a well-documented justification of how it determined the ''as soon as possible'' date in the fact sheet or administrative record for the permit. If the permitting authority determines a date later than the effective date of any final rule, the justification should explain why allowing additional time to meet any final limitations is appropriate, and why the discharger cannot meet the effluent limitations as of the effective date. Finally, while the Agency is proposing a ''no later than'' date of December 31, 2029, EPA solicits comment on earlier

[181] Information in the record indicates that most facilities should be able to complete all steps to implement changes needed to comply with proposed BA transport water requirements within 32–35 months, the FGD wastewater requirements within 28 months, and the CRL requirements within 22 months (DCN SE08480).

or later ''no later than'' dates such as five years from the effective date of the rule or a date that would harmonize with air regulations currently being developed for this same industry.

2. Conforming Changes for Transfers in Sections 423.13(o) and 423.19(i)

EPA is proposing to remove the LUEGU subcategory as discussed in Section VII.C of this preamble above. For consistency, EPA is proposing to remove the portions of section 423.13(o) that refer to this subcategory. This includes removal of paragraph (o)(1)(i), removal of paragraphs (o)(1)(ii)(C)–(E), and a renumbering of the remaining paragraphs. EPA is also revising paragraph (o)(3) as it would now apply to all remaining transfers. EPA is proposing to revise the reporting and recordkeeping requirements of section 423.19(i) to reflect the remaining transfer provisions. EPA solicits comment on whether any additional conforming changes are necessary for the transfer provisions of section 423.13(o).

3. Conforming Changes for Voluntary and Involuntary Delays in Sections 423.18(a) and 423.19(j)

EPA is proposing to remove the LUEGU subcategory and add an early adopter subcategory, as discussed in Section VII.C of this preamble above. For consistency, EPA is proposing to remove reference to LUEGUs and add a reference to early adopter EGUs in the permit conditions of section 423.18(a). EPA is also proposing conforming changes to the reporting and recordkeeping requirements in section 423.19(i). Specifically, EPA is proposing to add reference to the filings for material delays associated with the early adopter subcategory and associated 2032 permanent cessation of coal combustion date. EPA solicits comment on whether any additional conforming changes are necessary for the permit conditions or reporting and recordkeeping provisions to document these voluntary and involuntary delays.

EPA also wishes to clarify the applicability of section 423.18(a) with respect to TVA. TVA is not subject to regulation or oversight by either a public utility commission or an independent system operator but rather serves those functions for itself in its service territory. In addition, as of May 31, 2007, TVA was certified by NERC as the reliability coordinator for itself, as well as for TVA Reliability Coordinator Members.[182] As the NERC-certified reliability coordinator, TVA has the authority to issue operating instructions and emergency operating instructions with which the TVA Reliability Coordinator Members must comply. It is in every respect a competent electricity regulator. The current regulations broadly refer to ''a competent electricity regulator (*e.g.,* an independent system operator)'' and therefore would reasonably include unique situations such as that of TVA. Nevertheless, EPA solicits comment on whether this unique situation should explicitly be included in the regulatory text.

4. Recommended Information To Be Submitted With a Permit Application for a Potential Discharge of CRL Through Groundwater

The question of whether facilities in this sector require a permit for any wastewater that travels through groundwater is a long-standing one. The Supreme Court recently clarified that discharges of pollutants through groundwater to WOTUS are subject to the NPDES permit program if they are the functional equivalent of a direct discharge. *See County of Maui* v. *Hawaii Wildlife Fund,* 140 S. Ct. 1462 (2020). The record indicates that it is currently uncommon for CRL discharges through groundwater to be controlled in NPDES permits. Thus, EPA is recommending that all facilities with CCR landfills or surface impoundments evaluate whether there are any such discharges that are subject to the NPDES permit program. For any such discharges that are not currently authorized by an NPDES permit, EPA strongly recommends that the permittee expeditiously seek permit coverage. CWA section 301(a) explains that, except as in compliance with certain provisions of the act, ''. . . the discharge of any pollutant by any person shall be unlawful.'' The process to obtain NPDES permit authorization for any discharges typically begins when a permittee submits a permit application to seek permit coverage for discharge(s).

To help permitting authorities decide whether to issue a permit authorizing such discharges, EPA recommends that the permittees submit a permit application with sufficient information to inform that decision. NPDES regulations at 40 CFR 122.21(e) prohibit permitting authorities from issuing an individual permit until and unless a prospective discharger provides a complete application. Section 122.21(e)(1) states, ''an application for a permit is complete when the Director receives an application form and any supplemental information which are completed to his or her satisfaction.'' Absent EPA or state permit application forms specific to discharges through groundwater, EPA recommends that permit applicants with potential CRL discharges through groundwater subject to 40 CFR part 423 submit a permit application using the existing form(s) the permitting authority requires for industrial facilities, along with any supplemental information that would assist the permitting authority, including any of the information described below.

EPA recommends that permitting authorities also meet with applicants early in the process to understand what supplemental information they may need. The itemized elements of general and technical information described below are provided for consideration; the permitting authority may determine it needs this information, only a subset of this information, or other information. Providing the supplemental information that the permitting authority deems appropriate will help expedite the permitting authority's review of the permit application and potential permit issuance. As discussed in the *NPDES Permit Writer's Manual:*[183]

> ''[A]fter the initial application review, the permit writer may request that an applicant submit other information needed to decide whether to issue a permit and for permit development. The requested information could include the following: additional information, quantitative data . . .''

Supplemental information also can be obtained later when the permit writer is drafting the permit. The applicant may submit additional information voluntarily or be required to do so under CWA section 308 or a similar provision of state law. This process can be time consuming and intensive, as described in the *Permit Writer's Manual:* ''in some situations, a considerable amount of correspondence might be required before the permit writer obtains all the information that he or she believes is necessary to draft the permit.'' For permittees that request NPDES permit authorization for discharges of CRL through groundwater, EPA recommends that the permittee provide the information described below as soon as possible to the permitting authority. This information is unique to the steam electric industrial

[182] These members consist of Memphis Light, Gas, and Water (MLGW), Associated Electric Cooperative, Inc. (AECI), Louisville Gas & Electric and Kentucky Utilities (LG&E/KU), Owensboro Municipal Authority, and Smoky Mountain Transmission.

[183] Available online at: *www.epa.gov/npdes/npdes-permit-writers-manual.*

sector and may not be warranted for other industrial sectors at this time. This sector contains hundreds of large, unlined landfills and surface impoundments that are within a mile of a surface waterbody (and often substantially closer). Furthermore, EPA believes much of the supplemental data and information described below (and that would be part of the permit application) is already required and made publicly available under the CCR rule. Thus, the incremental burden to facilities should be minimal, especially when compared to the potential burden of the permitting authorities seeking out and compiling this same information.

• *EPA Recommended General Information.* General information helps the permitting authority identify the major site features and monitoring capabilities of the facility. The general information could include:

(1) Facility name and owner(s).

(2) The identification number of the most recent final national pollution discharge elimination permit, if any, and the date of issuance.

(3) A table listing all coal-fired EGUs, if any, or a statement that all EGUs have permanently ceased combustion of coal. The table shall also include the name or identifier, commission year, and nameplate capacity of each such EGU.

(4) A table listing all landfills and surface impoundments subject to 257.50 *et seq.* For each such landfill or surface impoundment, the table should also include the name or identifier, commission year, acreage, the liner status consistent with the definitions of sections 257.70–257.72, types of solid wastes present, quantity of waste present, and a statement that the landfill or surface impoundment is either active or has ceased receipt of waste, listing the date it ceased receipt of waste.

(5) A table listing all groundwater monitoring wells. For each such well, the table should also include the name or identifier, commission year, location information, screen depths, and type of geologic material in which the well was screened (*e.g.,* sand, silt, clay).

(6) A table listing all surface waterbodies located within one mile of any landfill or surface impoundment from the table in #4 above, if any, or the closest such waterbody if none are located within one mile. The table should also include the hydraulic unit code and the shortest measurable distance from any edge of the nearest landfill or surface impoundment to any edge of the waterbody. This shortest distance should be measured and reported at an average water level, maximum water level (*e.g.,* flood conditions), and minimum water level.

(7) A map with a legend depicting the location and boundaries of all items listed in the above information, including labels identifying such items.

• *EPA Recommended Technical Information.* Technical information on groundwater and subsurface data provides permitting authorities a compiled set of information to evaluate the seven factors identified in *Maui.* EPA notes that permitting authorities may request any other information or data as appropriate. Technical information could include:

(1) For each aquifer underlying the landfills and surface impoundments identified in the general information above, a time series of groundwater elevations as measured in the groundwater monitoring wells covering either 2015 through the present, or the groundwater monitoring well commission year through the present, whichever is shorter.

(2) For each surface water identified in the general information above, a time series of surface water elevations covering the same date range of as in #1.

(3) For each landfill or surface impoundment from the general information above, the elevation of the waste bottom. For each surface impoundment, the operating level and freeboard shall also be included.

(4) A graph plotting the elevations in #1–3 over time.

(5) Measured, calculated, or estimated values of the site hydraulic conductivity, hydraulic gradient, velocity of groundwater, and effective porosity, giving particular consideration to these along the trajectory of groundwater flow from the landfill or surface impoundment to the surface waterbody.

(6) Estimated groundwater travel time from each landfill or surface impoundment into each surface waterbody in the general information. In addition to average estimates, minimum and maximum travel times should be estimated.

(7) A groundwater potentiometric surface map of the facility illustrating the average travel times estimated in #6. To the extent possible, such a map should be created with data collected during the same sampling round.

(8) Summary statistics including the minimum, maximum, and average of the data and estimates in #1, 2, and 6.

(9) Using all available data, summary statistics (including minimum, maximum, and average) of the concentration of each pollutant in the table following this section for each groundwater monitoring well supported by appendix tables containing all groundwater monitoring data. Where no data exist for any pollutant in this table, there should be a certification for each such pollutant that no groundwater monitoring data exist. Erroneous data (*e.g.,* due to lab error) may be excluded with a narrative explaining the exclusions.

(10) Three isoconcentration plots showing the horizontal extent of the most dispersed pollutant reported in #9 using the minimum, maximum, and average values from each well. These plots should be supported by an appendix containing isoconcentration plots showing the horizontal extent of all remaining pollutants reported in #9 in the same manner.

(11) Three isoconcentration plots showing the vertical extent of the most dispersed pollutant reported in #9 using the minimum, maximum, and average values. These plots should be supported by appendix isoconcentration plots showing the vertical extent of all remaining pollutants reported in #9 in the same manner.

(12) Boring logs, geotechnical laboratory reports, and sieve analyses from the initial safety factor assessment, if any, other site-specific data and evaluations of the subsurface, and supplemental geologic subsurface data from regional databases where necessary.

(13) A list of sorbents for the pollutants listed in the table following this section, a list of which pollutants are known to sorb to each, and a discussion of which sorbents are present in the subsurface that contaminated groundwater would pass through to the surface waterbodies listed in the general information. If available, include laboratory measurements of contaminated uppermost aquifer material.

(14) The estimated cross-sectional surface area through which CRL enters each surface waterbody listed in the table in the general information.

(15) For each pollutant listed in the table following this section, a minimum, maximum, and average estimate of the mass flux from each landfill or surface impoundment and into each surface waterbody in the general information, the mass sorbed in the subsurface, and the mass dissolved in the groundwater.

BAT/PSES Treated Pollutants in CRL

Antimony	Magnesium
Arsenic	Manganese
Barium	Mercury
Beryllium	Molybdenum
Cadmium	Nickel
Chromium	Thallium
Cobalt	Titanium

BAT/PSES TREATED POLLUTANTS IN CRL—Continued

Copper	Vanadium
Lead	Zinc

EPA solicits comment on every aspect of these recommendations. While administrative burden to permitting agencies may initially increase, given the *Maui* decision and the high visibility of the data collected under the CCR rule, EPA anticipates that some of these facilities may need permit coverage in the future. EPA's intent is to assist permitting agencies by clarifying some of the supplemental data that would be useful for determining the presence and nature of a discharge of CRL through groundwater. EPA solicits comment on the extent to which this recommended information would reduce the existing burden to permitting authorities post-*Maui* and on alternatives that might further reduce this burden.

EPA also solicits comment on three alternative approaches for obtaining this information. First, EPA solicits comment on directly obtaining this information through a series of CWA 308(a) information request letters to all plants subject to 40 CFR part 423. Second, EPA solicits comment on placing the recommendations above directly in a regulation that would require provision of this information under CWA 308 authority. Third, EPA solicits comment on adding a requirement to the permit application regulations of part 122 that a facility must provide this information to the permitting authority as part of the permit application process. Under all these alternatives, EPA solicits comment on whether and how this information could be made publicly available to increase transparency.

C. Reporting and Recordkeeping Requirements

EPA is proposing several new reporting and recordkeeping requirements or changes and soliciting comment on others. First, to implement the proposed rule's removal of two subcategories and addition of an early adopter subcategory, under CWA sections 304(i) and 308, this proposal includes four proposed changes to the individual reporting and recordkeeping requirements of section 423.19. In particular, EPA is proposing to add an additional component to the annual progress reports under the subcategory for EGUs permanently ceasing coal combustion. As with the reporting and recordkeeping requirements of the 2020 rule, for the early adopter subcategory, EPA is proposing to balance the additional flexibilities for certifying to the subcategory at a later date with additional reporting and recordkeeping to provide extra certainty that plants still intend to avail themselves of those provisions. Moreover, EPA is proposing to add reporting and recordkeeping requirements to facilitate evaluation of CRL discharges through groundwater. EPA is also proposing to make conforming changes that would remove reporting and recordkeeping requirements applying to LUEGUs.

Second, to increase transparency for impacted communities, EPA is proposing to require all steam electric plants subject to the reporting and recordkeeping requirements of 423.19(d)–(k) to post this reporting and recordkeeping information to a public-facing website.[184]

Finally, EPA is soliciting comment on a potential reporting requirement intended to enhance flexibility for the transition to zero-discharge limitations for FGD wastewater and BA transport water.

1. Summary of Proposed Changes to the Annual Progress Reports for EGUs Permanently Ceasing Coal Combustion by 2028

EPA proposes to modify the annual progress reports for the subcategory of EGUs permanently ceasing coal combustion by 2028. Specifically, EPA proposes adding a requirement that the annual progress reports include either the official filing to the facility's reliability authority or a certification providing an estimate of when such a filing will be made. Furthermore, EPA is proposing that the final annual progress report prior to permanent cessation of coal combustion must include the official filing. While facilities may already include these filings in the NOPP or annual progress reports, these filings were not explicitly required in the 2020 rule and provide the strongest assurance that a facility will not voluntarily change its plans and continue operations beyond 2028. EPA solicits comment on whether this or additional requirements would further support the operation of the subcategory without unduly burdening regulated facilities.

2. Summary of the Proposed Reporting and Recordkeeping Requirements for Early Adopters

EPA is proposing new reporting and recordkeeping requirements for early adopters, including an initial NOPP and annual progress reports. EPA is proposing that the initial NOPP contain three items. First, EPA is proposing the NOPP include a statement that the facility discharged FGD wastewater after the effective date of the 2020 rule (85 FR 64650, October 13, 2020). Second, EPA is proposing the NOPP include a demonstration that the facility already complies with the limitations for FGD wastewater and BA transport water in the 2020 rule by March 29, 2023. Third, EPA is proposing the NOPP include information, with milestones, about plans for the permanent cessation of coal combustion by 2032 from the relevant EGUs. EPA is proposing the first two reporting requirements to ensure that early adopters relied on EPA's rules when incurring the costs to comply with existing regulations and subsequently did comply with these regulations. Specifically, EPA is proposing that this information include diagrams and descriptions of the relevant treatment chains, commission dates, and monitoring data demonstrating compliance. EPA is proposing the latter requirement to ensure that facility have a firm commitment to permanently cease coal combustion by 2032. For this requirement, EPA is proposing to require the same information and milestones as were required for the permanent cessation of coal combustion subcategory by 2028 in the 2020 rule. Finally, EPA is proposing that, as with the permanent cessation of coal combustion subcategory in the 2020 rule (and consistent with the proposed modification above), the early adopter subcategory also include annual progress reports on completion of milestones, upcoming milestones, and including certifications and official filings made to the reliability authority. Thus, EPA proposes the same language for consistency.

3. Summary of Proposed Reporting and Recordkeeping Requirements for CRL Discharges Through Groundwater

As discussed in Section VII of this preamble above, EPA is proposing BAT limitations and PSES for CRL. EPA further discusses in that section and in the implementation section above that CRL can be discharged not only through end-of-pipe discharges, but also through groundwater. EPA is proposing to include annual reporting and recordkeeping requirements to facilitate the permitting authorities' review of CRL discharges through groundwater to surface waters that are subject to NPDES permits. It would also facilitate compliance monitoring and make compliance information available to the public.

[184] EPA is seeking to adopt provisions for the websites consistent with those of the CCR rule.

EPA is proposing that facilities with discharges of CRL through groundwater file an Annual Combustion Residual Leachate Monitoring Report with the permitting authority, or control authority in the case of indirect dischargers, annually. This annual reporting requirement would be implemented via NPDES permits that authorize discharges of CRL through groundwater or directly where an indirect discharger eliminates the discharge through groundwater and subsequently discharges the treated CRL to a POTW. EPA is proposing that this report provide a comprehensive set of monitoring data. EPA is proposing this requirement to facilitate permitting and control authorities' ability to determine compliance with CRL limitations and to increase transparency to local communities. Thus, in addition to the data provided under 40 CFR part 127, where a CRL discharge occurs through groundwater, EPA is proposing to require groundwater monitoring data on the CRL leaving each landfill and surface impoundment and where it enters surface waterbodies. To increase transparency to local communities, EPA is proposing to require the report to include monitoring data on all the pollutants treated by chemical precipitation, rather than just mercury and arsenic. EPA solicits comment on this approach.

EPA solicits comment on all aspects of the proposed CRL monitoring report including the scope, types of information to be included, and the timeframes for submitting these reports to the permitting authority. EPA also solicits comment on whether there are additional pieces of information that would increase transparency or that the public or permitting authorities would find helpful. For example, one comment in a community meeting suggested that EPA require some limited independent monitoring and reporting to increase local community members' trust in any results presented. EPA also solicits comment on whether alternatives with a lower burden should be available in certain circumstances.

4. Proposed Deletion of Reporting and Recordkeeping Requirements for LUEGUs

EPA is proposing to remove the reporting and recordkeeping requirements for LUEGUs in current section 423.19(c) and for the associated BMP plans in current section 423.19(d), since EPA is proposing to eliminate this subcategory, as described in Section VII of this preamble above.

5. Proposed Requirement To Post Information to a Publicly Available Website

The reporting and recordkeeping requirements of the CCR rule included a novel approach for posting information to a publicly available website. This was initially done because at the time the CCR rule was signed, EPA did not have enforcement authority over the CCR rule. Thus, given the self-implementing nature of the regulations, EPA sought to make information more readily available to states and the public who could enforce the CCR rule through citizen suits.[185]

In contrast to the CCR rule, ELGs are implemented largely through authorized state permitting programs with EPA oversight. Nevertheless, one message that EPA received in initial outreach to communities was that there was a lack of trust of utilities (and in some cases, the states that regulate them). Another message was that there was an interest in more accessible information. Given the success CCR websites have achieved in disseminating information to a variety of stakeholders, EPA proposes a comparable posting requirement for the ELG. Specifically, EPA proposes that all reporting and recordkeeping information not only be retained by the regulated entity and provided to the permitting authority, but that it also be posted to a public website for 10 years, or the length of the permit plus five years, whichever is longer. EPA solicits comment on this timeframe. Furthermore, EPA's proposal would include NOPPs and other filings that have occurred since the 2020 rule. These new requirements are detailed in proposed regulatory text for section 423.19(c), and EPA solicits comment on the appropriateness of this approach, as well as any modifications to the approach that could improve transparency. EPA also proposes to allow this posting on existing CCR compliance websites to reduce paperwork burden and make it easier for communities to access. The Agency solicits comment on other ways such postings could be done while minimizing burdens.

6. Additional Solicitation on Providing a More Flexible Transition to Zero Discharge

EPA solicits comment on creation of a temporary reporting requirement, which would be in place prior to the facility meeting a zero-discharge limitation. Under such an approach, a plant would not include an optimization period in the calculation of its ''as soon as possible'' date. Rather, the plant would monitor and report any necessary discharges over the first year of attempted zero discharge while the system was being optimized and these discharges would not be a violation of the zero-discharge requirements. For subsequent years, such a flexibility would be discontinued.

D. Site-Specific Water Quality-Based Effluent Limitations

EPA regulations at 40 CFR 122.44(d)(1), implementing section 301(b)(1)(C) of the CWA require each NPDES permit to include any requirements, in addition to or more stringent than ELGs or standards promulgated pursuant to sections 301, 304, 306, 307, 318, and 405 of the CWA, necessary to achieve water quality standards established under section 303 of the CWA, including state narrative criteria for water quality. Those same regulations require that limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) that the Director determines are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard, including state narrative criteria for water quality (40 CFR 122.44(d)(1)(i)).

The preamble to the 2015 rule discussed bromide as a parameter for which water quality-based effluent limitations may be appropriate. EPA stated its recommendation that permitting authorities carefully consider whether water quality-based effluent limitations for bromide or TDS would be appropriate for FGD wastewater discharged from steam electric power plants upstream of drinking water intakes. EPA also stated its recommendation that the permitting authority notify any downstream drinking water treatment plants of the discharge of bromide.

While the 2020 rule did not include limitations on bromide for FGD wastewater or BA transport water (beyond the removals that would be required of plants choosing to meet the VIP limitations), the current proposal would require zero discharge of FGD wastewater and BA transport water for most plants. Nevertheless, EPA is proposing subcategories for these wastewaters, and new data submitted to EPA on CRL show measurable levels of

[185] While the Water Infrastructure Improvements for the Nation Act later provided EPA with permitting and oversight authority, the CCR rule continues to require posting to publicly available websites.

bromide.[186] Therefore, the records for the 2015 rule, the 2020 rule, and this proposal continue to suggest that permitting authorities should consider establishing water quality-based effluent limitations where necessary to meet applicable water quality standards to protect of populations served by downstream drinking water treatment plants.

In consultations conducted with state and local government entities, EPA received comments from the American Water Works Association (AWWA) and the Association of Metropolitan Water Agencies. These comments requested that EPA consider technologies that could treat upstream pollutants at the point of discharge, but also suggested that EPA empower states to address the issue as well. The latter discussion referenced the approaches discussed in *Methods to Assess Anthropogenic Bromide Loads from Coal-Fired Power Plants and Their Potential Effect on Downstream Drinking Water Utilities.*[187] This document, provided in comments during the 2020 rulemaking and again during consultations on the current rulemaking, describes methodologies, data sources, and considerations for constructing an approach to bromide issues on a site-specific basis. This document presents additional data sources that NPDES permitting authorities could use to establish site-specific, water quality-based effluent limitations (*see, e.g.,* figure 29 in AWWA's document). The document also provides examples of where states have already taken similar action. For example, AWWA cites California's 0.05 mg/L standard for in-river bromide to protect public health for specific waterways and drinking water treatment systems.

In addition to considering water quality-based effluent limitations for parameters present in the wastestreams in this proposal, EPA also calls attention to the need to address potential for per- and polyfluoroalkyl substance (PFAS) discharges. In EPA's *PFAS Strategic Roadmap,*[188] the Agency laid out actions that would prevent PFAS from entering the environment. Specifically, EPA stated it would ''proactively use existing NPDES authorities to reduce discharges of PFAS at the source and obtain more comprehensive information through monitoring on the sources of PFAS and quantity of PFAS discharged by these sources.'' EPA has already drafted a memorandum covering facilities where EPA is the permitting authority,[189] as well as guidance to state permitting authorities to address PFAS in NPDES permits.[190] While the steam electric power sector was not identified as one of the top PFAS dischargers, EPA notes that PFAS may nevertheless be present in steam electric discharges. For example, the Wisconsin Department of Natural Resources has found PFAS at eight power plants.[191] In addition, firefighting foam used in exercises or actual fires at steam electric plants could contain PFAS. Therefore, permitting or control authorities may appropriately consider whether PFAS monitoring and any further restrictions (*e.g.,* BMPs) would be appropriate at a given facility.

XVI. Related Acts of Congress, E.O.s, and Agency Initiatives

Additional information about these statutes and E.O.s can be found at *www.epa.gov/laws-regulations/laws-and-executive-orders.*

A. E.O.s 12866 (Regulatory Planning and Review) and 13563 (Improving Regulation and Regulatory Review)

This proposed rule was submitted to the OMB for review as significant under Section 3(f)(1) of Executive Order 12866. Any changes made in response to OMB recommendations have been documented in the docket. EPA prepared an analysis of the potential social costs and benefits associated with this action. This analysis is contained in Chapter 12 of the BCA and is available in the docket.

B. Paperwork Reduction Act

EPA has submitted the information collection activities in this proposed rule to the OMB for approval under the Paperwork Reduction Act. The Information Collection Request (ICR) document EPA prepared has been assigned EPA ICR number 2752.01 and OMB Control Number 2040–NEW. A copy of the ICR is available in the docket for this rule and is briefly summarized here.

As described in Section XV.C of this preamble, EPA is proposing several changes to the individual reporting and recordkeeping requirements of section 423.19 for specific subcategories of plants and/or plants that have certain types of discharges. EPA is proposing to add reporting and recordkeeping requirements to plants in the early adopter subcategory and plants that discharge CRL through groundwater, and to remove reporting and recordkeeping requirements for LUEGUs. EPA is also proposing a new requirement for plants to post reports to a publicly available website.

Respondents/affected entities: The respondents affected by this ICR are steam electric power plants. The North American Industry Classification System (NAICS) identification number applicable to respondents is 221112: Electric Power Generation Plants—Fossil Fuel Electric Power Generation. The U.S. Census Bureau describes this U.S. industry as establishments primarily engaged in operating fossil fuel powered electric power generation facilities. These facilities use fossil fuels, such as coal, oil, or gas, in internal combustion or combustion turbine conventional steam process to produce electric energy. The electric energy produced in these establishments is provided to electric power transmission systems or to electric power distribution systems.

Respondent's obligation to respond: Proposed language at 40 CFR 423.19 (c)–(l).

Estimated number of respondents: EPA estimates 100 steam electric facilities would be subject to this proposed rulemaking.

Frequency of response: EPA made the following assumptions for estimating frequency:

- NOPPs, notices, and the Leachate Groundwater Information Report (LGIR) would be submitted one time (in the first year of the requirements).
- Progress reports and the annual LGIR would be submitted once a year following the submittal of the official NOPP (*i.e.,* twice over a three-year period).

[186] The record also includes iodide in these discharges, another pollutant which should be considered alongside bromide for water quality-based effluent limitations.

[187] Available online at: *www.awwa.org/Portals/0/AWWA/ETS/Resources/17861ManagingBromideREPORT.pdf?ver=2020-01-09-151706-107.*

[188] U.S. EPA (Environmental Protection Agency). 2021. *PFAS Strategic Roadmap: EPA's Commitments to Action 2021–2024.* October 18. Available online at: *www.epa.gov/system/files/documents/2021-10/pfas-roadmap_final-508.pdf.*

[189] Fox, Radhika. 2022. *Addressing PFAS Discharges in EPA-Issued NPDES Permits and Expectations Where EPA is the Pretreatment Control Authority.* April 28. Available online at: *www.epa.gov/system/files/documents/2022-04/npdes_pfas-memo.pdf.*

[190] Fox, Radhika. 2022. *Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs.* December 5. Available online at: *https://www.epa.gov/system/files/documents/2022-12/NPDES_PFAS_State%20Memo_December_2022.pdf.*

[191] The maximum sampled concentrations in discharge from eight power plants was 28 ng/L for PFOS and 35 ng/L for PFOA, which the Wisconsin Department of Natural Resources theorized was due to concentration in cooling tower effluent.

• Progress reports associated with EPA's VIP program or NOPPs that have already been submitted would be submitted once a year following the publication of the final rule.

Total estimated burden: For facilities, the estimated facility universe for any reporting for the purpose of this estimate is 100 facilities. EPA estimates the total one-time labor hours associated with this ICR for facilities is 11,525 and total annual labor hours ranging from 1,400 to 7,260 for a total annual average of 9,160 hours. For permitting/control authorities, the estimated total one-time labor hours associated with this ICR is 4,350 and total annual labor hours ranging from 30 to 1,900 for a total annual average of 2,700 hours. Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: For facilities, EPA estimates the total one-time labor costs to be $667,000 and total annual labor costs to range from $81,000 to $422,300 for a total annual average of $531,000. For permitting/control Authorities, EPA estimates the total one-time labor costs to be $212,000 and total annual labor costs to range from $1,300 to $89,800 for a total annual average of $131,000.

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 OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9.

Submit your comments on EPA's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden using the docket identified at the beginning of this rule. Written comments and recommendations for the proposed information collection may also 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. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after receipt, OMB must receive comments no later than April 28, 2023. EPA will respond to any ICR-related comments in the final rule.

C. Regulatory Flexibility Act

I certify that this action will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act. The small entities subject to the requirements of this action include small businesses and small governmental jurisdictions that own steam electric plants. EPA has determined that 229 to 427 entities own steam electric plants subject to the ELGs, of which 109 to 200 entities are small. These small entities own a total of 250 steam electric plants (out of the total of 871 plants), including 20 plants estimated to incur costs under the regulatory options. EPA considered the impacts of the regulatory options in this proposal on small businesses using a cost-to-revenue test. The analysis compares the cost of implementing wastewater controls under the four regulatory options to those under baseline (which reflects the 2020 rule, as explained in Section V of this preamble). Small entities estimated to incur compliance costs exceeding one or more of the one percent and three percent impact thresholds were identified as potentially incurring a significant impact. For the proposed rule (Option 3), EPA's analysis shows only three small entities (one non-utility and two municipalities) expected to incur incremental costs equal to or greater than one percent of revenue. For one of these small entities (non-utility), the incremental cost of the proposed rule exceeds three percent of revenue. Details of this analysis are presented in Chapter 8 of the RIA, included in the docket.

These results support EPA's finding of no significant impact on a substantial number of small entities.

D. Unfunded Mandates Reform Act

This action contains a Federal mandate under the Unfunded Mandates Reform Act (UMRA), 2 U.S.C. 1531–1538 that may result in expenditures of $100 million (adjusted annually for inflation) or more for state, local, and tribal governments, in the aggregate, or the private sector in any one year ($170 million in 2021 dollars). Accordingly, EPA has prepared a written statement required under section 202 of UMRA. The statement is included in the docket for this action (see Chapter 9 in the RIA report) and briefly summarized below.

Consistent with the intergovernmental consultation provisions of section 204 of the UMRA, EPA has initiated consultations with government entities potentially affected by this proposed rule. As described in Section XVI.E of this preamble, EPA held consultation meetings with elected officials or their designated employees in January 2022 to ensure their meaningful and timely input into the proposed ELGs development. As described in Section XVI.F of this preamble, EPA also initiated consultation and coordination with federally recognized tribal governments in February 2022.

Consistent with section 205, EPA has identified and considered a reasonable number of regulatory alternatives to develop proposed BAT. These regulatory options are discussed in Section VII of this preamble. These options included a range of technology-based approaches. As discussed in detail in Section VII.B of this preamble, EPA is proposing Option 3 as the preferred BAT after considering the factors required under CWA section 304(b)(2)(B). The technologies are available, are economically achievable, and have acceptable non-water quality environmental impacts.

This proposed rule is not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. To assess the impact of compliance requirements on small governments (*i.e.,* governments with a population of less than 50,000), EPA compared total costs and costs per plant estimated to be incurred by small governments with the costs estimated to be incurred by large governments. EPA also compared costs for small government-owned plants with those of non-government-owned facilities. The Agency evaluated both the average and maximum annualized costs per plant. Chapter 9 of the RIA report provides details of these analyses. In all these comparisons, both for the cost totals and, in particular, for the average and maximum cost per plant, the costs for small government-owned facilities were less than those for large government-owned facilities or small non-government-owned facilities. On this basis, EPA concludes that the compliance cost requirements of the proposed steam electric ELGs would not significantly or uniquely affect small governments.

E. E.O. 13132: Federalism

EPA has concluded that this action has federalism implications because it imposes direct compliance costs on state or local governments, and the Federal Government will not provide the funds necessary to pay those costs.

As discussed in Section XVI.B of this preamble, EPA anticipates that this proposed action would not impose incremental administrative burden on states from issuing, reviewing, and overseeing compliance with discharge requirements. EPA has identified 148 steam electric plants owned by 64 state or local government entities. Under the proposed regulatory Option 3 (BAT and PSES), EPA projects that 17 government-owned plants would incur

compliance costs. EPA estimates that the maximum compliance cost in any one year to governments (excluding the Federal Government) for the four regulatory options ranges from $31 million under Option 1 to $46 million under Options 3 and 4 (see Chapter 9 of the RIA report for details).

EPA provides the following federalism summary impact statement.

EPA consulted with state and local officials early in the process of developing the proposed action to permit them to have meaningful and timely input into its development. EPA invited government officials to a consultation meeting held on January 27, 2022. EPA conducted outreach with several intergovernmental associations representing elected officials and encouraged their members to participate in the meeting, including the National Governors Association, the National Conference of State Legislatures, the Council of State Governments, the National Association of Counties, the National League of Cities, the U.S. Conference of Mayors, the County Executives of America, and the National Associations of Towns and Townships.

Participants representing 15 state and local government organizations participated in the virtual consultation meeting. EPA representatives were also present. EPA received five sets of unique written comments after the meeting. Two comments came from trade associations representing public water systems. These comments generally recommended more advanced treatment to reduce the pollutants making their way downstream to intakes for government-owned public water systems or, alternatively, to empower states to more effectively address these discharges. The remaining three comments came from the American Public Power Association and two of its member utilities. These comments recommended the retention of existing limitations and subcategories, a careful consideration of the CRL definition and BAT, and a compliance pathway for utilities that installed or are installing technologies to comply with the 2015 and 2020 rules.

As explained in Section VII of this preamble, EPA is proposing more stringent limitations on several wastestreams that would alleviate concerns raised by the public water systems. At the same time, EPA's preferred option (Option 3) includes retention of the permanent cessation of coal combustion subcategory and a proposed subcategory for early adopters. EPA believes these differentiated requirements would alleviate some of the concerns raised by publicly owned utilities. Further, as explained in Section VIII of this preamble, EPA's analysis demonstrates that the proposed requirements are economically achievable for the steam electric industry as a whole and for plants owned by state or local government entities. EPA is including in the docket for this proposed action a memorandum that responds to the comments it received through this consultation and the consultations described in Section XVI.F of this preamble below. For further information regarding the consultation process and supplemental materials provided to state and local government representatives, please go to the steam electric power generating effluent guidelines website at: *www.epa.gov/eg/2021-supplemental-steam-electric-rulemaking.* In the spirit of E.O. 13132, and consistent with EPA policy to promote communications between EPA and state and local governments, EPA specifically solicits comment on the proposed ELGs from state and local officials.

F. E.O. 13175: Consultation and Coordination With Indian Tribal Governments

This proposed action would not have tribal implications, as specified in E.O. 13175 (65 FR 67249 (November 9, 2000)). It would not have substantial direct effects on tribal governments, on the relationship between the Federal Government and the Indian Tribes, or the distribution of power and responsibilities between the Federal Government and Indian Tribes as specified in E.O. 13175. EPA's analyses show that no facility subject to these proposed ELGs is owned by tribal governments. Thus, E.O. 13175 does not apply to this proposed action.

Although E.O. 13175 does not apply to this action, EPA consulted with tribal officials in developing this action. EPA initiated consultation and coordination with federally recognized tribal governments in January 2022, sharing information about the steam electric effluent guidelines rulemaking with the National Tribal Caucus, the National Tribal Water Council, and several individual tribes. EPA continued this government-to-government dialogue and, on February 1 and February 9, 2022, invited tribal representatives to participate in further discussions about the rulemaking process and objectives, with a focus on identifying specific ways the rulemaking may affect tribes.[192] The consultation process ended on March 29, 2022. While no tribal governments requested direct government-to-government consultations, EPA received written comments from three tribes: the Sault Ste. Marie Tribe of Chippewa Indians, the Mille Lacs Band of Ojibwe, and the Little Traverse Bay Bands of Odawa Indians. These comments conveyed the importance of historical tribal waters and rights (*e.g.,* fishing, trapping) and recommended more stringent technological controls to protect those rights or encourage retirement or fuel conversion of old coal-fired units. EPA is including in the docket for this action a memorandum that provides a response to the comments it received through this consultation and the consultations described in Sections XVI.D and XVI.E of this preamble above. For further information regarding the consultation process and supplemental materials provided to tribal representatives, please go to the steam electric power generating effluent guidelines website at: *www.epa.gov/eg/2021-supplemental-steam-electric-rulemaking.* EPA specifically solicits additional comment on this proposed action from tribal officials.

G. E.O. 13045: Protection of Children From Environmental Health Risks and Safety Risks

This action is not subject to E.O. 13045 because EPA does not believe the environmental health risks or safety risks addressed by this action present a disproportionate risk to children. This action's health and risk assessments are discussed in Chapters 4 and 5 of the BCA and are summarized below.

EPA identified several ways in which the proposed regulatory options could benefit children, including by potentially reducing health risks from exposure to pollutants present in steam electric plant discharges, or through impacts of the discharges on the quality of source water used by public water systems. This reduction arises from more stringent pollutant limitations as compared to baseline. In particular, EPA quantified the changes in IQ losses from lead exposure among preschool children and from mercury exposure *in utero* resulting from maternal fish consumption under the four regulatory options as compared to baseline. EPA also estimated changes in the lifetime risk of developing bladder cancer due to exposure to TTHM in drinking water. For this analysis, EPA did not estimate children-specific risks because these adverse health effects normally follow

[192] As discussed in Sections XIII and XVI.J of this preamble, EPA also did targeted outreach to communities in the top tier of its EJ screening analysis which included two tribal communities.

long-term exposure. Finally, EPA estimated changes in air-related adverse health effects resulting from changes in the profile of electricity generation under Option 3 as compared to baseline. The analysis found that the resulting reductions in $PM_{2.5}$ and ozone will benefit children by reducing asthma onset and symptoms, allergy symptoms, emergency room visits and hospital visits for respiratory conditions, and school absences. These analyses show that all the regulatory options presented in this proposal would benefit children.

H. E.O. 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

This proposed action is not a ''significant energy action'' because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. EPA analyzed the potential energy effects of the proposed rule relative to baseline and found minimal or no impacts on electricity generation, generating capacity, cost of energy production, or dependence on a foreign supply of energy. Specifically, the Agency's analysis found that the proposed rule would not reduce electricity production by more than 1 billion kWhs per year or by 500 MW of installed capacity, nor would the proposed rule increase U.S. dependence on foreign energy supplies. For more detail on the potential energy effects of the regulatory options in this proposal, see section 10.7 in the RIA, available in the docket.

I. National Technology Transfer and Advancement Act

This rulemaking does not involve technical standards.

J. E.O. 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

E.O. 12898 (59 FR 7629, February 16, 1994) directs Federal agencies, to the greatest extent practicable and permitted by law, to make EJ part of their missions by identifying and addressing 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.

EPA believes that the human health or environmental conditions existing prior to this action result in or have the potential to result in disproportionate and adverse human health or environmental effects on people of color, low-income populations, and/or Indigenous peoples.

EPA believes that this action is likely to reduce existing disproportionate and adverse effects on people of color, low-income populations, and/or Indigenous peoples. A summary of the projected effects on these populations are contained in the EJA, which is available in the docket and summarized in Section XIII of this preamble above.

Appendix A to the Preamble: Definitions, Acronyms, and Abbreviations Used in This Preamble

The following acronyms, abbreviations, and terms are used in this preamble. These terms are provided for convenience to the reader and they are not regulatory definitions with the force or effect of law, nor are they to be used as guidance for implementation of this proposed rule.

Administrator. The Administrator of the U.S. Environmental Protection Agency.

Agency. U.S. Environmental Protection Agency.

BAT. Best available technology economically achievable, as defined by CWA sections 301(b)(2)(A) and 304(b)(2)(B).

BCA. Benefit Cost Analysis.

Bioaccumulation. General term describing a process by which chemicals are taken up by an organism either directly from exposure to a contaminated medium or by consumption of food containing the chemical, resulting in a net accumulation of the chemical over time by the organism.

BMP. Best management practice.

BA. Bottom ash. The ash, including EGU slag, that settles in a furnace or is dislodged from furnace walls. Economizer ash is included when it is collected with BA.

BA purge water. The water discharged from a wet BA handling system that recycles some, but not all, of its BA transport water.

BPT. The best practicable control technology currently available, as defined by CWA sections 301(b)(1) and 304(b)(1).

CBI. Confidential business information.

CCR. Coal combustion residuals.

CWA. Clean Water Act; The Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1251 *et seq.*), as amended, *e.g.,* by the Clean Water Act of 1977 (Pub. L. 95–217) and the Water Quality Act of 1987 (Pub. L. 100–4).

Combustion residuals. Solid wastes associated with combustion-related power plant processes, including fly ash and BA from coal-, petroleum coke-, or oil-fired units; FGD solids; FGMC wastes; and other wastewater treatment solids associated with combustion wastewater. In addition to the residuals associated with coal combustion, this also includes residuals associated with the combustion of other fossil fuels.

Direct discharge. (1) Any addition of any ''pollutant'' or combination of pollutants to ''waters of the United States'' from any ''point source'' or (2) any addition of any pollutant or combination of pollutant to waters of the ''contiguous zone'' or the ocean from any point source other than a vessel or other floating craft that is being used as a means of transportation. This definition includes additions of pollutants into waters of the United States from surface runoff that is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a state, municipality, or other person that do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances that lead into privately owned treatment works. This term does not include addition of pollutants by any ''indirect discharger.''

Direct discharger. A plant that discharges treated or untreated wastewaters into waters of the United States.

DOE. Department of Energy.

Dry BA handling system. A system that does not use water as the transport medium to convey BA away from the EGU. Dry handling systems include systems that collect and convey the BA without using any water, as well as systems in which BA is quenched in a water bath and then mechanically or pneumatically conveyed away from the EGU. Dry BA handling systems do not include wet sluicing systems (such as remote MDS or complete recycle systems).

Effluent limitation. Under CWA section 502(11), any restriction, including schedules of compliance, established by a state or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents that are discharged from point sources into navigable waters, the waters of the contiguous zone, or the ocean.

EGU. Electric generating unit.

EIA. Energy Information Administration.

EJA. Environmental Justice Analysis

ELGs. Effluent limitations guidelines and standards.

E.O. Executive Order.

EPA. U.S. Environmental Protection Agency.

FA. Fly ash.

Facility. Any NPDES ''point source'' or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

FGD. Flue gas desulfurization.

FGD wastewater. Wastewater generated specifically from the wet FGD scrubber system that contacts the flue gas or the FGD solids, including, but not limited to, the blowdown or purge from the FGD scrubber system, overflow or underflow from the solids separation process, FGD solids wash water, and the filtrate from the solids dewatering process. Wastewater generated from cleaning the FGD scrubber, cleaning FGD solids separation equipment, cleaning FGD solids dewatering equipment, or that is collected in floor drains in the FGD process area is not considered FGD wastewater.

Fly ash. The ash that is carried out of the furnace by a gas stream and collected by a capture device such as a mechanical precipitator, electrostatic precipitator, and/or fabric filter. Economizer ash is included in this definition when it is collected with FA. Ash is not included in this definition when it is collected in wet scrubber air pollution control systems whose primary purpose is particulate removal.

Groundwater. Water that is found in the saturated part of the ground underneath the land surface.

Indirect discharge. Wastewater discharged or otherwise introduced to a POTW.

IPM. Integrated Planning Model.

Landfill. A disposal facility or part of a facility or plant where solid waste, sludges, or other process residuals are placed in or on any natural or manmade formation in the earth for disposal and which is not a storage pile, a land treatment facility, a surface impoundment, an underground injection well, a salt dome or salt bed formation, an underground mine, a cave, or a corrective action management unit.

MDS. Mechanical drag system.

Mechanical drag system. BA handling system that collects BA from the bottom of an EGU in a water-filled trough. The water bath in the trough quenches the hot BA as it falls from the EGU and seals the EGU gases. A drag chain operates in a continuous loop to drag BA from the water trough up an incline, which dewaters the BA by gravity, draining the water back to the trough as the BA moves upward. The dewatered BA is often conveyed to a nearby collection area, such as a small bunker outside the EGU building, from which it is loaded onto trucks and either sold or transported to a landfill. The MDS is considered a dry BA handling system because the ash transport mechanism is mechanical removal by the drag chain, not the water.

Mortality. Death rate or proportion of deaths in a population.

NAICS. North American Industry Classification System.

NPDES. National Pollutant Discharge Elimination System.

NSPSs. New Source Performance Standards.

ORCR. Office of Resource Conservation and Recovery.

Paste. A substance containing solids in a fluid which behaves as a solid until a force is applied that causes it to behave like a fluid.

Paste landfill. A landfill that receives any paste designed to set into a solid after the passage of a reasonable amount of time.

Point source. Any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel, or other floating craft from which pollutants are or may be discharged. The term does not include agricultural stormwater discharges or return flows from irrigated agriculture. *See* CWA section 502(14), 33 U.S.C. 1362(14); 40 CFR 122.2.

POTW. Publicly owned treatment works. *See* CWA section 212, 33 U.S.C. 1292; 40 CFR 122.2, 403.3.

PSES. Pretreatment Standards for Existing Sources.

Publicly owned treatment works. Any device or system owned by a state or municipality that is used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature. These include sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment. *See* CWA section 212, 33 U.S.C. 1292; 40 CFR 122.2, 403.3.

PSC. Public service commission.

PUC. Public utility commission.

RCRA. The Resource Conservation and Recovery Act of 1976, 42 U.S.C. 6901 *et seq.*

Remote MDS. BA handling system that collects BA at the bottom of the EGU, then uses transport water to sluice the ash to a remote MDS that dewaters BA using a similar configuration as the MDS. The remote MDS is considered a wet BA handling system because the ash transport mechanism is water.

RO. Reverse osmosis.

RFA. Regulatory Flexibility Act.

SBA. Small Business Administration.

Sediment. Particulate matter lying below water.

Surface water. All waters of the United States, including rivers, streams, lakes, reservoirs, and seas.

Toxic pollutants. As identified under the CWA, 65 pollutants and classes of pollutants, of which 126 specific substances have been designated priority toxic pollutants. *See* Appendix A to 40 CFR part 423.

Transport water. Wastewater that is used to convey FA, BA, or economizer ash from the ash collection or storage equipment or EGU, and has direct contact with the ash. Transport water does not include low volume, short duration discharges of wastewater from minor leaks (*e.g.,* leaks from valve packing, pipe flanges, or piping) or minor maintenance events (*e.g.,* replacement of valves or pipe sections).

UMRA. Unfunded Mandates Reform Act.

Wet BA handling system. A system in which BA is conveyed away from the EGU using water as a transport medium. Wet BA systems typically send the ash slurry to dewatering bins or a surface impoundment. Wet BA handling systems include systems that operate in conjunction with a traditional wet sluicing system to recycle all BA transport water (*e.g.,* remote MDS or complete recycle systems).

Wet FGD system. Wet FGD systems capture sulfur dioxide from the flue gas using a sorbent that has mixed with water to form a wet slurry, and that generates a water stream that exits the FGD scrubber absorber.

List of Subjects in 40 CFR Part 423

Environmental protection, Electric power generation, Power facilities, Waste treatment and disposal, Water pollution control.

Michael S. Regan,

Administrator.

For the reasons stated in the preamble, the Environmental Protection Agency proposes to amend 40 CFR part 423 as follows:

PART 423—STEAM ELECTRIC POWER GENERATING POINT SOURCE CATEGORY

■ 1. The authority citation for part 423 is revised to read as follows:

Authority: Secs. 101; 301; 304(b), (c), (e), (g), and (i)(A) and (B); 306; 307; 308 and 501, Clean Water Act (Federal Water Pollution Control Act Amendments of 1972, as amended; 33 U.S.C. 1251 *et seq.;* 1311; 1314(b), (c), (e), (g), and (i)(A) and (B); 1316; 1317; 1318 and 1361).

■ 2. Amend § 423.11 by:

■ a. Revising paragraphs (x), (y), and (z);

■ b. Removing paragraph (bb);

■ c. Redesignating paragraph (cc) as paragraph (bb) and revising new paragraph (bb);

■ d. Redesignating paragraph (dd) as paragraph (cc); and

■ e. Adding new paragraphs (dd) and (ee).

The revisions and additions read as follows:

§ 423.11 Specialized definitions.

* * * * *

(x) The term ''early adopter'' means the owner or operator certifies under § 423.19(e) that an electric generating unit that generated FGD wastewater on or after October 13, 2020, has installed by March 24, 2023 biological treatment equipment or zero valent iron treatment equipment to meet all applicable limitations in § 423.13(g) or 423.16(e) as those provisions existed on October 13, 2020, and bottom ash handling equipment to meet all applicable limitations in § 423.13(k) or 423.16(g) as those provisions existed on October 13, 2020; that the installed equipment does meet such applicable limitations as of March 24, 2023; and that such electric generating unit will and does permanently cease combustion of coal no later than December 31, 2032.

(y) The term ''surface impoundment'' means a natural topographic depression, man-made excavation, or diked area, which is designed to hold an accumulation of coal combustion residuals and liquids, and the unit treats, stores, or disposes of coal combustion residuals.

(z) The term ''tank'' means a stationary device, designed to contain an accumulation of wastewater, which is constructed primarily of non-earthen materials (*e.g.,* wood, concrete, steel, plastic) that provide structural support, and which is not a surface impoundment.

* * * * *

(bb) The term ''bottom ash purge water'' means any water being discharged subject to § 423.13(k)(2)(i) or 423.16(g)(3).

(cc) The term ''30-day rolling average'' means the series of averages using the measured values of the preceding 30 days for each average in the series.

(dd) The term ''surface impoundment decant wastewater'' means the layer of a closing surface impoundment's wastewater which is located from the water surface down to the level sufficiently above any coal combustion

residuals that, when drained, does not resuspend the coal combustion residuals.

(ee) The term ''surface impoundment dewatering wastewater'' means the layer of a closing surface impoundment's wastewater which is located below surface impoundment decant wastewater due to its contact with either stationary or resuspended coal combustion residuals. * * * * *

■ 3. Amend § 423.12 by revising paragraph (b)(11) to read as follows:

§ 423.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

* * * * *

(b)* * *

(11) The quantity of pollutants discharged in FGD wastewater, flue gas mercury control wastewater, combustion residual leachate, gasification wastewater, bottom ash purge water, surface impoundment decant wastewater, and surface impoundment dewatering wastewater shall not exceed the quantity determined by multiplying the flow of the applicable wastewater times the concentration listed in the following table:

TABLE 7 TO PARAGRAPH (b)(11)

Pollutant or pollutant property	BPT effluent limitations	
	Maximum for any 1 day (mg/L)	Average of daily values for 30 consecutive days shall not exceed (mg/L)
TSS	100.0	30.0
Oil and grease	20.0	15.0

* * * * *

■ 4. Amend § 423.13 by:

■ a. Revising paragraphs (g)(1), (2)(ii), (2)(iii), (3)(ii), (k)(1), (2)(i), (2)(iii), (l);

■ b. Redesignating paragraph (n) as paragraph (p);

■ c. Redesignating paragraph (m) as paragraph (n) and adding new paragraph (m); and

■ d. Revising paragraphs (o)(1), and (3).

The revisions and additions read as follows:

§ 423.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

* * * * *

(g)(1)(i) *FGD wastewater.* Except for those discharges to which paragraph (g)(2) or (3) of this section applies, there shall be no discharge of pollutants in FGD wastewater. Dischargers must meet the discharge limitation in this paragraph by a date determined by the permitting authority that is as soon as possible beginning [DATE 60 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE], but no later than December 31, 2029. These effluent limitations apply to the discharge of FGD wastewater generated on and after the date determined by the permitting authority for meeting the effluent limitations, as specified in this paragraph.

(ii) FGD wastewater generated before the date determined by the permitting authority as specified in paragraph (g)(1)(i) of this section.

(A) [Reserved]

* * * * *

(2) * * *

(ii) For any electric generating unit subject to paragraph (g)(2)(i) of this section for which the owner has submitted a certification for the permanent cessation of coal combustion pursuant to § 423.19(f) and has not transferred between subcategories under paragraph (o) of this section, after December 31, 2028, there shall be no discharge of pollutants in FGD wastewater. Any permit issued beginning [DATE 60 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE] must contain this no discharge requirement applicable as of January 1, 2029.

(iii) For FGD wastewater discharges from an early adopter electric generating unit, on or before December 31, 2032, the quantity of pollutants in FGD wastewater shall not exceed the quantity determined by multiplying the flow of FGD wastewater times the concentration listed in the table following this paragraph (g)(2)(iii) of this section. After December 31, 2032, there shall be no discharge of pollutants in FGD wastewater. Any permit issued beginning [DATE 60 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE] must contain this no discharge requirement applicable as of January 1, 2033.

TABLE 6 TO PARAGRAPH (g)(2)(iii)

Pollutant or pollutant property	BAT effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
Arsenic, total (μg/L)	18	8
Mercury, total (ng/L)	103	34
Selenium, total (μg/L)	70	29
Nitrate/nitrite as N (mg/L)	4	3

* * * * *

(3) * * *

(ii) FGD wastewater generated before December 31, 2028.

(A) For discharges of FGD wastewater generated before December 31, 2023, the quantity of pollutants discharged in FGD wastewater shall not exceed the quantity determined by multiplying the flow of FGD wastewater times the concentration listed for TSS in § 423.12(b)(11).

(B) [Reserved].

* * * * *

(k)(1)(i) *Bottom ash transport water.* Except for those discharges to which paragraph (k)(2) of this section applies, or when the bottom ash transport water is used in the FGD scrubber, there shall be no discharge of pollutants in bottom ash transport water. Dischargers must meet the discharge limitation in this paragraph by a date determined by the permitting authority that is as soon as possible beginning [DATE 60 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE], but no later than December 31, 2029. This limitation applies to the discharge of bottom ash transport water generated on and after the date determined by the permitting authority for meeting the discharge limitation, as specified in this paragraph. Except for those discharges to which paragraph (k)(2) of this section applies, whenever bottom ash transport water is used in any other plant process or is sent to a treatment system at the plant (except when it is used in the FGD scrubber), the resulting effluent must comply with the discharge limitation in this paragraph. When the bottom ash transport water is used in the FGD scrubber, it ceases to be bottom ash transport water, and instead is FGD wastewater, which must meet the requirements in paragraph (g) of this section.

(ii) Bottom ash transport water generated before the date determined by the permitting authority as specified in paragraph (k)(1)(i) of this section.

(A) [Reserved]

(2)(i) For early adopter electric generating units:

(A) The discharge of pollutants in bottom ash transport water from a properly installed, operated, and maintained bottom ash system on or before December 31, 2032, is authorized under the following conditions, and after December 31, 2032, there shall be no discharge of pollutants in BA transport water. Any permit issued beginning [DATE 60 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE] must contain this no discharge requirement.

(*1*) To maintain system water balance when precipitation-related inflows are generated from storm events exceeding a 10-year storm event of 24-hour or longer duration (*e.g.,* 30-day storm event) and cannot be managed by installed spares, redundancies, maintenance tanks, and other secondary bottom ash system equipment; or

(*2*) To maintain system water balance when regular inflows from wastestreams other than bottom ash transport water exceed the ability of the bottom ash system to accept recycled water and segregating these other wastestreams is not feasible; or

(*3*) To maintain system water chemistry where installed equipment at the facility is unable to manage pH, corrosive substances, substances or conditions causing scaling, or fine particulates to below levels which impact system operation or maintenance; or

(*4*) To conduct maintenance not otherwise included in paragraphs (k)(2)(i)(A)(*1*), (*2*), or (*3*) of this section and not exempted from the definition of transport water in § 423.11(p), and when water volumes cannot be managed by installed spares, redundancies, maintenance tanks, and other secondary bottom ash system equipment.

(B) The total volume that may be discharged for the activities in paragraph (k)(2)(i)(A) of this section shall be reduced or eliminated to the extent achievable using control measures (including best management practices) that are technologically available and economically achievable in light of best industry practice. The total volume of the discharge authorized in this paragraph shall be determined on a case-by-case basis by the permitting authority and in no event shall such discharge exceed a 30-day rolling average of ten percent of the primary active wetted bottom ash system volume. The volume of daily discharges used to calculate the 30-day rolling average shall be calculated using measurements from flow monitors.

* * * * *

(iii) For any electric generating unit subject to paragraph (k)(2)(ii) of this section for which the owner has submitted a certification for the permanent cessation of coal combustion pursuant to § 423.19(f), and has not transferred to another subcategory under paragraph (o) of this section, after December 31, 2028, there shall be no discharge of pollutants in bottom ash transport water. Any permit issued beginning [DATE 60 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE] must contain this no discharge requirement applicable as of January 1, 2029.

(l) *Combustion residual leachate.* The quantity of pollutants in combustion residual leachate shall not exceed the quantity determined by multiplying the flow of combustion residual leachate times the concentration listed in the table following this paragraph (l). Dischargers must meet the effluent limitations in this paragraph by a date determined by the permitting authority that is as soon as possible beginning [DATE 60 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE], but no later than December 31, 2029. These effluent limitations apply to the discharge of combustion residual leachate generated on and after the date determined by the permitting authority for meeting the effluent limitations, as specified in this paragraph.

TABLE 9 TO PARAGRAPH (l)

Pollutant or pollutant property	BAT effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
Arsenic, total (μg/L)	11	8
Mercury, total (ng/L)	788	356

(m)(1) Surface impoundment decant wastewater.

(A) [Reserved].

(2) Surface impoundment dewatering wastewater.

(A) [Reserved].

(3) Bottom ash purge water.

(A) [Reserved].

(n) At the permitting authority's discretion, the quantity of pollutant allowed to be discharged may be expressed as a concentration limitation instead of any mass-based limitations specified in paragraphs (b) through (m) of this section. Concentration limitations shall be those concentrations specified in this section.

(o)(1) Transfer between subcategories and applicable limitations in a permit. Where, in the permit, the permitting authority has included alternative limitations subject to eligibility requirements, upon timely notification to the permitting authority under § 423.19(i), a facility can become subject to the alternative limitations under the following circumstances:

(i) On or before December 31, 2025, a facility may convert:

(A) From voluntary incentives program limitations under paragraph (g)(3)(i) of this section to limitations for electric generating units permanently ceasing coal combustion under paragraph (g)(2)(i) of this section; or

(B) From limitations for electric generating units permanently ceasing coal combustion under paragraphs (g)(2)(i) or (k)(2)(ii) of this section to voluntary incentives program limitations under paragraphs (g)(3)(i) of this section or generally applicable limitations under (k)(1)(i) of this section.

* * * * *

(3) Where a facility seeking a transfer is currently subject to more stringent limitations than the limitations being sought, the facility must continue to meet those more stringent limitations.

(p) In the event that wastestreams from various sources are combined for treatment or discharge, the quantity of each pollutant or pollutant property controlled in paragraphs (a) through (n) of this section attributable to each controlled waste source shall not exceed the specified limitation for that waste source.

■ 5. Amend § 423.16 by revising paragraphs (e)(1) and (g)(1), and adding paragraphs (j) and (k) to read as follows:

§ 423.16 Pretreatment standards for existing sources (PSES).

* * * * *

(e)(1) *FGD wastewater.* (i) Except as provided for in paragraph (e)(2) of this section, for any electric generating unit with a total nameplate generating capacity of more than 50 megawatts, that is not an oil-fired unit, and that the owner has not certified to the permitting authority that it will permanently cease coal combustion pursuant to § 423.19(f), there shall be no discharge of pollutants in FGD wastewater. Dischargers must meet the standards in this paragraph by [DATE 3 YEARS AFTER DATE OF PUBLICATION OF FINAL RULE] except as provided for in paragraph (e)(2) of this section. These standards apply to the discharge of FGD wastewater generated on and after [DATE 3 YEARS AFTER DATE OF PUBLICATION OF FINAL RULE].

(ii) For any electric generating unit excepted from paragraph (e)(1)(i) of this section because the owner has submitted a certification for the permanent cessation of coal combustion pursuant to § 423.19(f), after December 31, 2028, there shall be no discharge of pollutants in FGD wastewater.

(2) For FGD wastewater discharges from an early adopter electric generating unit, on or before December 31, 2032, the quantity of pollutants in FGD wastewater shall not exceed the quantity determined by multiplying the flow of FGD wastewater times the concentration listed in the table following this paragraph (e)(2) of this section. After December 31, 2032, there shall be no discharge of pollutants in FGD wastewater.

TABLE 3 TO PARAGRAPH (e)(2)

Pollutant or pollutant property	PSES	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
Arsenic, total (ug/L)	18	8
Mercury, total (ng/L)	103	34
Selenium, total (ug/L)	70	29
Nitrate/nitrite as N (mg/L)	4	3

* * * * *

(g) *Bottom ash transport water.* (1) Except for those discharges to which paragraph (g)(2) of this section applies, or when the bottom ash transport water is used in the FGD scrubber, for any electric generating unit with a total nameplate generating capacity of more than 50 megawatts, that is not an oil-fired unit, and that the owner has not certified to the permitting authority that the electric generating unit will permanently cease coal combustion pursuant to § 423.19(f), there shall be no discharge of pollutants in bottom ash transport water. This standard applies to the discharge of bottom ash transport water generated on and after [DATE 60 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE]. Except for those discharges to which paragraph (g)(3) of this section applies, whenever bottom ash transport water is used in any other plant process or is sent to a treatment system at the plant the resulting effluent must comply with the discharge standard in this paragraph.

(2) For any electric generating unit excepted from paragraph (g)(1) because the owner has submitted a certification for the permanent cessation of coal combustion pursuant to § 423.19(f), after December 31, 2028, there shall be no discharge of pollutants in bottom ash transport water.

(3) For early adopter electric generating units:

(i) The discharge of pollutants in bottom ash transport water from a properly installed, operated, and maintained bottom ash system on or before December 31, 2032, is authorized under the following conditions, and after December 31, 2032, there shall be no discharge of pollutants in BA transport water.

(A) To maintain system water balance when precipitation-related inflows are generated from a 10-year storm event of 24-hour or longer duration (*e.g.,* 30-day

storm event) and cannot be managed by installed spares, redundancies, maintenance tanks, and other secondary bottom ash system equipment; or

(B) To maintain system water balance when regular inflows from wastestreams other than bottom ash transport water exceed the ability of the bottom ash system to accept recycled water and segregating these other wastestreams is feasible; or

(C) To maintain system water chemistry where current operations at the facility are unable to currently manage pH, corrosive substances, substances or conditions causing scaling, or fine particulates to below levels which impact system operation or maintenance; or

(D) To conduct maintenance not otherwise included in paragraphs (g)(3)(i)(A), (B), or (C) of this paragraph and not exempted from the definition of transport water in § 423.11(p), and when water volumes cannot be managed by installed spares, redundancies, maintenance tanks, and other secondary bottom ash system equipment.

(ii) The total volume that may be discharged to a POTW for the activities in paragraph (g)(3)(i) of this section shall be reduced or eliminated to the extent achievable as determined by the control authority. The control authority may also include control measures (including best management practices) that are technologically available and economically achievable in light of best industry practice. In no event shall the total volume of the discharge exceed a 30-day rolling average of ten percent of the primary active wetted bottom ash system volume. The volume of daily discharges used to calculate the 30-day rolling average shall be calculated using measurements from flow monitors.

* * * * *

(j) Combustion residual leachate. The quantity of pollutants in combustion residual leachate shall not exceed the quantity determined by multiplying the flow of combustion residual leachate times the concentration listed in the table following this paragraph (j). Dischargers must meet the standards in this paragraph [DATE 60 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE].

TABLE 5 TO PARAGRAPH (j)

Pollutant or pollutant property	PSES	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
Arsenic, total (ug/L)	11	8
Mercury, total (ng/L)	788	356

(k) Surface impoundment decant wastewater, surface impoundment dewatering wastewater, and bottom ash purge water.

(1) Surface impoundment decant wastewater.

(A) [Reserved].

(2) Surface impoundment dewatering wastewater.

(A) [Reserved].

(3) Bottom ash purge water.

(A) [Reserved].

■ 6. Amend § 423.18 by revising paragraph (a) to read as follows.

§ 423.18 Permit conditions.

(a) All permits subject to this part shall include the following permit conditions:

(1) An electric generating unit shall qualify as permanently ceasing the combustion of coal by December 31, 2028, or December 31, 2032, if such qualification would have been demonstrated absent the following qualifying event:

(i) An emergency order issued by the Department of Energy under Section 202(c) of the Federal Power Act;

(ii) A reliability must run agreement issued by a Public Utility Commission; or

(iii) Any other reliability-related order or agreement issued by a competent electricity regulator (*e.g.,* an independent system operator) which results in that electric generating unit operating in a way not contemplated when the certification was made; or

(2)(i) The operation of the electric generating unit was necessary for load balancing in an area subject to a declaration under 42 U.S.C. 5121 *et seq.,* that there exists:

(A) An ''Emergency''; or

(B) A ''Major Disaster''; and

(3) That load balancing was due to the event that caused the ''Emergency'' or ''Major Disaster'' in paragraph (a)(2)(i) of this section to be declared.

* * * * *

■ 7. Amend § 423.19 by:

■ a. Removing paragraph (d);

■ b. Redesignating paragraph (c) as paragraph (d) and adding a new paragraph (c) and revising the newly designated paragraph (d);

■ c. Revising paragraphs, (e), (f)(1) and (4), (i), and (j); and

■ d. Adding paragraph (k).

The revisions and additions read as follows:

§ 423.19 Reporting and recordkeeping requirements.

* * * * *

(c) Publicly accessible internet site requirements.

(1) Except as provided in paragraph (c)(2) of this section, each facility subject to the requirements of this part must maintain a publicly accessible internet site (ELG website) containing the information specified in paragraphs (d) through (l) of this section, if applicable. This website shall be titled ''ELG Rule Compliance Data and Information.'' The facility must ensure that all information required to be posted is immediately available to anyone visiting the site, without requiring any prerequisite, such as registration or a requirement to submit a document request. All required information must be clearly identifiable and must be able to be immediately downloaded by anyone accessing the site in a format that enables additional analysis (*e.g.,* comma-separated values text file format). When the facility initially creates, or later changes, the web address (*i.e.,* Uniform Resource Locator (URL)) at any point, they must notify EPA via the ''contact us'' form on EPA's Effluent Guidelines website and the permitting authority or control authority within 14 days of creating the website or making the change. The facility's ELG website must also have a ''contact us'' form or a specific email address posted on the website for the public to use to submit questions and issues relating to the availability of information on the website.

(2) Combined websites.

(i) When an owner or operator subject to this section already maintains a ''CCR Rule Compliance Data and Information'' website pursuant to 40 CFR 257.107, the postings required under this section may be made to the existing ''CCR Rule Compliance Data and Information'' website and shall be delineated under a separate heading that shall state ''ELG Rule Compliance Data and Information.'' When electing to use an existing website pursuant to this paragraph, the facility shall notify EPA via the ''contact us'' form on EPA's Effluent Guidelines website and the permitting authority or control authority no later than [DATE 60 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE].

(ii) When the same owner or operator is subject to the provisions of this part for multiple facilities, the owner or operator may comply with the requirements of this section by using the same internet site for multiple facilities provided the ELG website clearly delineates information by the name of each facility.

(3) Unless otherwise required in this section, the information required to be posted to the ELG website must be made available to the public for at least 10 years following the date on which the information was first posted to the ELG website, or the length of the permit plus five years, whichever is longer. All required information must be clearly identifiable and must be able to be immediately downloaded by anyone accessing the site in a format that enables additional analysis (*e.g.,* comma-separated values text file format).

(4) Unless otherwise required in this section, the information must be posted to the ELG website:

(i) Within 30 days of submitting the information to the permitting authority or control authority; or

(ii) Where information was submitted to the permitting authority or control authority prior to [DATE 60 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE], by [DATE 60 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE].

(d) Requirements for early adopter electric generating units discharging bottom ash transport water pursuant to § 423.13(k)(2)(i) or 423.16(g)(3).

(1) *Initial Certification Statement.* For sources seeking to discharge bottom ash transport water pursuant to § 423.13(k)(2)(i) or 423.16(g)(3), an initial certification shall be submitted to the permitting authority by [DATE 60 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE].

(2) *Signature and certification.* The certification statement must be signed and certified by a professional engineer.

(3) *Contents.* An initial certification shall include the following:

(i) A statement that the professional engineer is a licensed professional engineer.

(ii) A statement that the professional engineer is familiar with the regulation requirements.

(iii) A statement that the professional engineer is familiar with the facility.

(iv) The primary active wetted bottom ash system volume in § 423.11(aa).

(v) Material assumptions, information, and calculations used by the certifying professional engineer to determine the primary active wetted bottom ash system volume.

(vi) A list of all potential discharges under § 423.13(k)(2)(i)(A)(*1*) through (A)(*4*) or 423.16(g)(3)(i) through (iv), the expected volume of each discharge, and the expected frequency of each discharge.

(vii) Material assumptions, information, and calculations used by the certifying professional engineer to determine the expected volume and frequency of each discharge including a narrative discussion of why such water cannot be managed within the system and must be discharged.

(viii) A list of all wastewater treatment systems at the facility currently, or otherwise required by a date certain under this section.

(ix) A narrative discussion of each treatment system including the system type, design capacity, and current or expected operation.

(e) Requirements for early adopter electric generating units.

(1) *Notice of Planned Participation.* For sources seeking to qualify as early adopter electric generating units that will achieve permanent cessation of coal combustion by December 31, 2032, under this part, a Notice of Planned Participation shall be submitted to the permitting authority or control authority no later than [DATE 1 YEAR AFTER DATE OF PUBLICATION OF FINAL RULE].

(2) *Contents.* A Notice of Planned Participation shall identify the early adopter electric generating unit intended to achieve the permanent cessation of coal combustion. A Notice of Planned Participation shall include:

(i) A statement that the electric generating unit discharged FGD wastewater on or after October 13, 2020;

(ii) A statement that the facility was in compliance with the FGD wastewater limitations of § 423.13(g)(2)(iii) or 423.16(e)(2)(i) as those provisions existed on October 13, 2020, and where applicable the bottom ash transport water limitations of § 423.13(k)(2)(i) or 423.16(g)(2)(i) as those provisions existed on October 13, 2020, by March 24, 2023 with the following additional details:

(A) A diagram of the treatment chain for FGD wastewater, including the biological treatment or zero valent iron component, with a complete narrative discussion explaining the components of the treatment chain including the flows entering, leaving, or passing through each component, a description of any solids generated by each component, and measurements (or where necessary, estimates) of both the flows and solids (*e.g.,* gallons per minute, tons per day, etc.);

(B) A diagram of the bottom ash handling system with a complete narrative discussion explaining the treatment chain including the flows entering, leaving, or passing through each component, a description of any solids generated by each component, and measurements (or where necessary, estimates) of both the flows and solids (*e.g.,* gallons per minute, tons per day, etc.);

(C) The dates the treatment chains in paragraph (e)(2)(ii) of this section were commissioned, or where separate components were commissioned on different dates, the commission dates of each;

(D) All effluent monitoring data from the relevant outfall(s) or, where an internal monitoring location(s) was used, from the internal monitoring location(s); and

(E) Where applicable, the data and calculations demonstrating compliance of the diluted FGD wastewater where monitoring data from the relevant outfall captures a diluted wastestream shall include a narrative discussion of all data, assumptions, and calculations such that an independent party could duplicate the work.

(iii) The expected date that each electric generating unit is projected to achieve permanent cessation of coal combustion, whether each date represents a retirement or a fuel conversion, whether each retirement or fuel conversion has been approved by a regulatory body, and what the relevant regulatory body is. The Notice of Planned Participation shall also include a copy of the most recent integrated resource plan for which the applicable state agency approved the retirement or repowering of the unit subject to the ELGs, or other documentation supporting that the electric generating unit will permanently cease the combustion of coal by December 31, 2032. The Notice of Planned Participation shall also include, for each such electric generating unit, a timeline to achieve the permanent cessation of coal combustion. Each timeline shall include interim milestones and the projected dates of completion.

(3) *Annual Progress Report.* Annually after submission of the Notice of Planned Participation in paragraph (e)(1) of this section, a progress report shall be filed with the permitting authority, or control authority in the case of an indirect discharger.

(4) *Contents.* An Annual Progress Report shall detail the completion of any interim milestones listed in the Notice of Planned Participation since the previous progress report, provide a narrative discussion of any completed, missed, or delayed milestones, and provide updated milestones. An annual progress report shall also include one of the following:

(i) A copy of the official suspension filing (or equivalent filing) made to the facility's reliability authority detailing the conversion to a fuel source other than coal;

(ii) A copy of the official retirement filing (or equivalent filing) made to the facility's reliability authority which must include a waiver of recission rights; or

(iii) An initial certification, or recertification for subsequent annual progress reports, containing either a statement that the facility will make the filing required in paragraph (e)(4)(i) of this section or a statement that the facility will make the filing required in paragraph (e)(4)(ii) of this section. The certification or recertification must include the estimated date that such a filing will be made.

(iv) A facility shall not include a certification or recertification under paragraph (e)(4)(iii) of this section in the final annual progress report submitted prior to permanent cessation of coal combustion. Rather, this final annual progress report must include the filing under paragraph (e)(4)(i) or (ii) of this section.

* * * * *

(f) * * *

(1) *Notice of Planned Participation.* For sources seeking to qualify as an electric generating unit that will achieve permanent cessation of coal combustion by December 31, 2028, under this part, a Notice of Planned Participation shall be made to the permitting authority, or to the control authority in the case of an indirect discharger, no later than [DATE 60 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE].

* * * * *

(4) *Contents.* An Annual Progress Report shall detail the completion of any interim milestones listed in the Notice of Planned Participation since the previous progress report, provide a narrative discussion of any completed, missed, or delayed milestones, and provide updated milestones. An annual progress report shall also include one of the following:

(i) A copy of the official suspension filing (or equivalent filing) made to the facility's reliability authority detailing the conversion to a fuel source other than coal;

(ii) A copy of the official retirement filing (or equivalent filing) made to the facility's reliability authority which must include a waiver of recission rights; or

(iii) An initial certification, or recertification for subsequent annual progress reports, containing either a statement that the facility will make the filing required in paragraph (f)(4)(i) of this section or a statement that the facility will make the filing required in paragraph (f)(4)(ii) of this section. The certification or recertification must include the estimated date that such a filing will be made.

(iv) A facility shall not include a certification or recertification under paragraph (f)(4)(iii) of this section in the final annual progress report submitted prior to permanent cessation of coal combustion. Rather, this final annual progress report must include the filing under paragraph (f)(4)(i) or (ii) of this section.

* * * * *

(i) Requirements for facilities seeking to transfer between subcategories and applicable limitations in a permit under § 423.13(o).

(1) *Notice of Planned Participation.* For sources which have filed a Notice of Planned Participation under paragraphs (f)(1) or (h)(1) of this section and intend to make changes that would qualify them for a different set of requirements under § 423.13(o), a Notice of Planned Participation shall be made to the permitting authority, or to the control authority in the case of an indirect discharger, no later than the dates stated in § 423.13(o)(1).

(2) *Contents.* A Notice of Planned Participation shall include a list of the electric generating units for which the source intends to change compliance alternatives. For each such electric generating unit, the notice shall list the specific provision under which this transfer will occur, the reason such a transfer is warranted, and a narrative discussion demonstrating that each electric generating unit will be able to maintain compliance with the relevant provisions.

(j) Notice of Material Delay.

(1) *Notice.* Within 30 days of experiencing a material delay in the milestones set forth in paragraphs (e)(2), (f)(2), or (h)(2) of this section, and where such a delay may preclude permanent cessation of coal combustion or compliance with the voluntary incentives program limitations by December 31, 2028, or December 31, 2032, for early adopter electric generating units, a facility shall file a notice of material delay with the permitting authority, or control authority in the case of an indirect discharger.

(2) *Contents.* The contents of such a notice shall include the reason for the delay, the projected length of the delay, and a proposed resolution to maintain compliance.

(k) Requirements for facilities with coal combustion residual landfills or surface impoundments

(1) *Annual Combustion Residual Leachate Monitoring Report.* In addition to reporting pursuant to 40 CFR part 127, each facility treating combustion residual leachate in groundwater to comply with § 423.13(l) or 423.16(j) shall file an annual combustion residual leachate monitoring report each calendar year to the permitting authority or control authority for indirect discharges of the treated CRL.

(2) *Contents.* The annual combustion residual leachate monitoring report shall provide the following monitoring data for each pollutant listed in the table following this section. For paragraphs (k)(2)(ii) and (iii) of this section the report shall also describe the location of monitoring wells, screening depth, and frequency of sampling. The report shall include summary statistics including monthly minimum, maximum, and average concentrations for each pollutant. The report shall be supported by an appendix of all samples.

(i) Effluent monitoring data reported pursuant to 40 CFR part 127.

(ii) Groundwater monitoring data as the combustion residual leachate leaves each of the landfills and surface impoundments discharging through groundwater.

(iii) Groundwater monitoring at the point the combustion residual leachate enters each surface waterbody.

(iv) Summary statistics for the data described in paragraphs (k)(2)(i) through (iii) of this section including the monthly average and daily maximum of each pollutant and a comparison to any limitation in § 423.13(l) or 423.16(j).

TABLE 1 TO PARAGRAPH (k)(2)(iv)

BAT/PSES Treated Pollutants in Combustion Residual Leachate	
Antimony	Magnesium
Arsenic	Manganese
Barium	Mercury
Beryllium	Molybdenum
Cadmium	Nickel
Chromium	Thallium
Cobalt	Titanium
Copper	Vanadium
Lead	Zinc

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Part V

Consumer Financial Protection Bureau

12 CFR Part 1026
Credit Card Penalty Fees (Regulation Z); Proposed Rule

CONSUMER FINANCIAL PROTECTION BUREAU

12 CFR Part 1026

[Docket No. CFPB–2023–0010]

RIN 3170–AB15

Credit Card Penalty Fees (Regulation Z)

AGENCY: Consumer Financial Protection Bureau.

ACTION: Proposed rule with request for public comment.

SUMMARY: The Consumer Financial Protection Bureau (Bureau) proposes to amend Regulation Z, which implements the Truth in Lending Act (TILA), to better ensure that the late fees charged on credit card accounts are ''reasonable and proportional'' to the late payment as required under TILA. The proposal would adjust the safe harbor dollar amount for late fees to $8 and eliminate a higher safe harbor dollar amount for late fees for subsequent violations of the same type; provide that the current provision that provides for annual inflation adjustments for the safe harbor dollar amounts would not apply to the late fee safe harbor amount; and provide that late fee amounts must not exceed 25 percent of the required payment.

DATES: Comments should be received on or before May 3, 2023.

ADDRESSES: You may submit comments, identified by Docket No. CFPB–2023–0010 or RIN 3170–AB15, by any of the following methods:

- *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the instructions for submitting comments.
- *Email: 2023-NPRM-CreditCardLateFees@cfpb.gov.* Include Docket No. CFPB–2023–0010 or RIN 3170–AB15 in the subject line of the message.
- *Mail/Hand Delivery/Courier:* Comment Intake—2023 NPRM Credit Card Late Fees, c/o Legal Division Docket Manager, Consumer Financial Protection Bureau, 1700 G Street NW, Washington, DC 20552. Because paper mail in the Washington, DC area and at the Bureau is subject to delay, commenters are encouraged to submit comments electronically.

Instructions: The Bureau encourages the early submission of comments. All submissions should include the agency name and docket number or Regulatory Information Number (RIN) for this rulemaking. In general, comments received will be posted without change to *https://www.regulations.gov.* All comments, including attachments and other supporting materials, will become part of the public record and subject to public disclosure. Proprietary information or sensitive personal information, such as account numbers or Social Security numbers, or names of other individuals, should not be included. Comments will not be edited to remove any identifying or contact information.

FOR FURTHER INFORMATION CONTACT: Adrien Fernandez, Counsel, Krista Ayoub and Steve Wrone, Senior Counsels, Office of Regulations, at 202–435–7700. If you require this document in an alternative electronic format, please contact *CFPB_Accessibility@cfpb.gov.*

SUPPLEMENTARY INFORMATION:

I. Summary of the Proposed Rule

The Bureau proposes to amend provisions in § 1026.52(b) and its accompanying commentary as they relate to credit card late fees.[1] Currently, under § 1026.52(b)(1), a card issuer must not impose a fee for violating the terms or other requirements of a credit card account under an open-end consumer credit plan, such as a late payment, exceeding the credit limit, or returned payments, unless the issuer has determined that the dollar amount of the fee represents a reasonable proportion of the total costs incurred by the issuer for that type of violation as set forth in § 1026.52(b)(1)(i) or complies with the safe harbor provisions set forth in § 1026.52(b)(1)(ii). Section 1026.52(b)(1)(ii) currently sets forth a safe harbor of $30 generally for penalty fees, except that it sets forth a safe harbor of $41 for each subsequent violation of the same type that occurs during the same billing cycle or in one of the next six billing cycles.[2] The Bureau is concerned that (1) the safe harbor dollar amounts for late fees currently set forth in § 1026.52(b)(1)(ii) are not reasonable and proportional to the omission or violation to which the fee relates; (2) the current higher safe harbor threshold for late fees for subsequent violations of the same type in the same billing cycle or in one of the next six billing cycles is higher than is justified based on consumer conduct and to deter future violations and, indeed, a late fee that is too high could interfere with the consumers' ability to make future payments on the account; and (3) additional restrictions on late fees may be needed to ensure that late fees are reasonable and proportional. Because late fees are by far the most prevalent penalty fees charged by card issuers and the Bureau's current data primarily relates to late fees, the Bureau's proposed changes to the restrictions in § 1026.52(b) are limited to late fees at this time, although the Bureau seeks comments on whether the proposed amendments should apply to other penalty fees.

The proposal would amend § 1026.52(b) and its accompanying commentary to help ensure that late fees are reasonable and proportional. First, the proposal would amend § 1026.52(b)(1)(ii) to lower the safe harbor dollar amount for late fees to $8 and to no longer apply to late fees a higher safe harbor dollar amount for subsequent violations of the same type that occur during the same billing cycle or in one of the next six billing cycles.[3] Second, the proposal would provide that the current provision in § 1026.52(b)(1)(ii)(D) that provides for annual inflation adjustments for the safe harbor dollar amounts would not apply to the safe harbor amount for late fees. Third, the proposal would amend § 1026.52(b)(2)(i)(A) to provide that late fee amounts must not exceed 25 percent of the required payment; currently, late fee amounts must not exceed 100 percent. The proposal also would amend comments 7(b)(11)–4, 52(a)(1)–1.i and iv, and 60(a)(2)–5.ii to revise current examples of late fee amounts to be consistent with the proposed $8 safe harbor late fee amount discussed above. The Bureau also solicits comment on whether card issuers should be prohibited from imposing late fees on consumers that make the required

[1] When amending commentary, the Office of the Federal Register (OFR) requires reprinting of certain subsections being amended in their entirety rather than providing more targeted amendatory instructions. The sections of regulatory text and commentary included in this document show the language of those sections if the Bureau adopts its changes as proposed. In addition, the Bureau is releasing an unofficial, informal redline to assist industry and other stakeholders in reviewing the changes that it proposes to make to the regulatory text and commentary of Regulation Z. This redline can be found on the Bureau's website, *https://files.consumerfinance.gov/f/documents/cfpb_2023-credit-card-late-fees-proposed-rule_unofficial-redline_2023-01.pdf.* If any conflicts exist between the redline and the text of Regulation Z, its commentary, or this proposed rule, the documents published in the **Federal Register** are the controlling documents.

[2] Although the safe harbors discussed above apply to charge card accounts, § 1026.52(b)(1)(ii) provides an additional safe harbor when a charge card account becomes seriously delinquent. Specifically, § 1026.52(b)(1)(ii)(C) provides that, when a card issuer has not received the required payment for two or more consecutive billing cycles on a charge card account that requires payment of outstanding balances in full at the end of each billing cycle, it may impose a late payment fee that does not exceed 3 percent of the delinquent balance.

[3] The proposal would not amend the safe harbor set forth in § 1026.52(b)(1)(ii)(C) applicable to charge card accounts.

payment within 15 calendar days following the due date. In addition, the Bureau seeks comment on whether, as a condition of using the safe harbor for late fees, it may be appropriate to require card issuers to offer automatic payment options (such as for the minimum payment amount), or to provide notification of the payment due date within a certain number of days prior to the due date, or both.

The Bureau proposes one clarification that would apply to penalty fees generally. Specifically, the proposal would amend comment 52(b)(1)(i)–2.i to clarify that costs for purposes of the cost analysis provisions in § 1026.52(b)(1)(i) for determining penalty fee amounts do not include any collection costs that are incurred after an account is charged off pursuant to loan loss provisions. In addition, the Bureau solicits comment on several issues related to penalty fees generally. First, the Bureau solicits comment on whether the same or similar changes described above should be applied to other penalty fees, such as over-the-limit fees, returned-payment fees, and declined access check fees, or in the alternative, whether the Bureau should finalize the proposed safe harbor for late fees and eliminate the safe harbors for other penalty fees. Second, the Bureau solicits comment on whether instead of revising the safe harbor provisions set forth in § 1026.52(b)(1)(ii) as they apply to late fees as discussed above, the Bureau should instead eliminate the safe harbor provisions in § 1026.52(b)(1)(ii) for late fees or should instead eliminate the safe harbor for all penalty fees, including late fees, over-the-limit fees, returned-payment fees, and declined access check fees. If the safe harbor provisions were eliminated, card issuers would need to use the cost analysis provisions set forth in § 1026.52(b)(1)(i) to determine the amount of the penalty fees (subject to the limitations in § 1026.52(b)(2)). The Bureau also solicits comment on whether, in that event, the cost analysis provisions would need to be amended and, if so, how.

II. Background

A. The CARD Act

The Credit Card Accountability Responsibility and Disclosure Act of 2009 (CARD Act) was signed into law on May 22, 2009.[4] The CARD Act primarily amended TILA [5] and instituted new substantive and disclosure requirements to establish fair and transparent practices for open-end consumer credit plans. The CARD Act added TILA section 149, which provides, among other things, that the amount of any penalty fee with respect to a credit card account under an open-end consumer credit plan in connection with any omission with respect to, or violation of, the cardholder agreement, including any late payment fee or any other penalty fee or charge, must be ''reasonable and proportional'' to such omission or violation.[6]

At the time of its passage, the CARD Act required the Board of Governors of the Federal Reserve System (Board) to issue rules establishing standards for assessing the reasonableness and proportionality of such penalty fees.[7] In issuing these rules, the CARD Act required the Board to consider (1) the cost incurred by the creditor from an omission or violation; (2) the deterrence of omissions or violations by the cardholder; (3) the conduct of the cardholder; and (4) such other factors deemed necessary or appropriate by the Board.[8] The CARD Act authorized the Board to establish different standards for different types of fees and charges, as appropriate.[9] The CARD Act also granted the Board discretion to provide an amount for any penalty fee or charge that is presumed to be reasonable and proportional to the omission or violation to which the fee or charge relates.[10] As discussed in more detail below, the authority to implement TILA, including TILA section 149, transferred from the Board to the Bureau in 2011.

B. The Board's Implementing Rule

On June 29, 2010, the Board issued a final rule implementing new TILA section 149 in its Regulation Z, 12 CFR 226.52(b) (2010 Final Rule).[11] The Board's Regulation Z, § 226.52(b) provided that a card issuer must not impose a fee for violating the terms or other requirements of a credit card account, such as a late payment, exceeding the credit limit, or returned payments, unless the issuer has determined that the dollar amount of the fee represents a reasonable proportion of the total costs incurred by the issuer for that type of violation as set forth in § 226.52(b)(1)(i) or complies with the safe harbor provisions set forth in § 226.52(b)(1)(ii).[12] The Board set the safe harbor amounts in § 226.52(b)(1)(ii) at $25 generally for penalty fees, except that it set forth a safe harbor of $35 for each subsequent violation of the same type that occurs during the same billing cycle or in one of the next six billing cycles.[13] Although the safe harbors discussed above applied to charge card accounts, the Board's Regulation Z, § 226.52(b)(1)(ii) also provided an additional safe harbor when a charge card account becomes seriously delinquent. Specifically, § 226.52(b)(1)(ii)(C) provided that, when a card issuer has not received the required payment for two or more consecutive billing cycles on a charge card account that requires payment of outstanding balances in full at the end of each billing cycle, it may impose a late payment fee that does not exceed 3 percent of the delinquent balance.[14] The Board's Regulation Z, § 226.52(b)(1)(ii)(D) provided that the safe harbor dollar amounts would be adjusted annually to the extent that changes in the Consumer Price Index (CPI) would result in an increase or decrease of $1.[15]

The Board's Regulation Z, § 226.52(b)(2) also contained other restrictions on card issuers for imposing penalty fees. Specifically, § 226.52(b)(2)(i) prohibited issuers from imposing penalty fees that exceed the dollar amount associated with the violation.[16] In addition, § 226.52(b)(2)(ii) prohibited issuers from imposing multiple penalty fees based on a single event or transaction.[17]

C. Transfer of Authority for TILA to the Bureau and the Bureau's Rule

The Board's 2010 Final Rule implementing TILA section 149 took effect on August 22, 2010.[18] Nearly one year later, on July 21, 2011, the Board's rulemaking authority to implement the provisions of TILA, including TILA section 149, transferred to the Bureau pursuant to sections 1061 and 1100A of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act).[19]

On December 22, 2011, the Bureau issued an interim final rule issuing its Regulation Z, 12 CFR part 1026, to reflect its assumption of rulemaking

[4] Public Law 111–24, 123 Stat. 1734 (2009).

[5] 15 U.S.C. 1601 *et seq.*

[6] CARD Act section 102, 123 Stat. 1740 (15 U.S.C. 1665d(a)).

[7] CARD Act section 102, 123 Stat. 1740 (15 U.S.C. 1665d(b)).

[8] CARD Act section 102, 123 Stat. 1740 (15 U.S.C. 1665d(c)).

[9] CARD Act section 102, 123 Stat. 1740 (15 U.S.C. (1665d(d)).

[10] CARD Act section 102, 123 Stat. 1740 (15 U.S.C. (1665d(e)).

[11] 75 FR 37526 (June 29, 2010).

[12] 12 CFR 226.52(b)(1).

[13] 12 CFR 226.52(b)(1)(ii)(A) and (B).

[14] 12 CFR 226.52(b)(1)(ii)(C).

[15] 12 CFR 226.52(b)(1)(ii)(D).

[16] 12 CFR 226.52(b)(2)(i).

[17] 12 CFR 226.52(b)(2)(ii).

[18] 75 FR 37526, 37526 (June 29, 2010).

[19] Public Law 111–203, 124 Stat. 1376 (2010).

authority over TILA.[20] As set forth in the interim final rule, the Bureau's Regulation Z, § 1026.52(b) contained the same restrictions on penalty fees as set forth in the Board's Regulation Z, § 226.52(b).[21]

Since then, consistent with § 1026.52(b)(1)(ii)(D), the Bureau has adjusted the dollar amounts of the safe harbor threshold amounts to reflect changes in the CPI in effect as of June 1 of that year.[22] Section 1026.52(b)(1)(ii) currently sets forth a safe harbor of $30 generally for penalty fees, except that it sets forth a safe harbor of $41 for each subsequent violation of the same type that occur during the same billing cycle or in one of the next six billing cycles.[23]

D. A Decade of the Late Fee Safe Harbor

In the wake of the Board's and the Bureau's implementation of TILA section 149, late fees represent almost all penalty fee volume on credit cards, as overlimit fees are now practically nonexistent and fees for returned payments account for a negligible share based on Y–14+ data collected from a group of mass market and specialized issuers.[24]

Prior to the passage of the CARD Act in 2009, the average late fee was $33 for issuers in the Bureau's Credit Card Database (CCDB) which includes information on the full consumer and small business credit card portfolios of large credit card lenders, covering approximately 85 percent of all credit card accounts in the U.S. between April 2008 and April 2016.[25] With the effective date of the safe harbor threshold amounts in 2010, the average late fee in the CCDB declined by over $10 to $23 in the fourth quarter of 2010.[26]

However, from 2010 through the onset of the COVID–19 pandemic, issuers had steadily been charging consumers more in credit card late fees each year—peaking at over $14 billion in total late fee volume for issuers contained in the Y–14+ data in 2019.[27] At the end of 2012, the average late fee for major issuers in the CCDB reached about $27.[28] It remained at about that level until rising to $28 in 2018 for issuers in the Y–14+, consistent with the first safe harbor adjustment for inflation in 2014.[29] In 2019, the average late fee charged by credit card issuers in the Y–14+ rose to $31, approaching nominal pre-CARD Act levels.[30] The total volume of late fees assessed by issuers in the Y–14+ declined to about $12 billion in 2020 given record-high payment rates and public and private relief efforts.[31]

E. Credit Card Issuers' Use of the Late Fee Safe Harbor

Currently, § 1026.52(b)(1)(ii) sets forth a safe harbor of $30 generally for a late payment, except that it sets forth a safe harbor of $41 for each subsequent late payment within the next six billing cycles. A card issuer is not required to use the cost analysis provisions in § 1026.52(b)(1)(i) to determine the amount of late fees if it complies with these safe harbor amounts.[32]

An analysis of credit card agreements found no evidence of any issuers using the cost analysis provisions to charge an amount higher than the safe harbor.[33] Most large issuers have taken advantage of the increased safe harbors as adjusted for inflation by increasing their fee amounts.[34] Eighteen of the top 20 issuers by outstanding balances contracted a maximum late fee at or near the higher safe harbor amount of $40 in 2020 based on analysis of the maximum late fee disclosed by an institution in agreements submitted to the Bureau's Credit Card Agreement Database in the fourth quarter of that year.[35] Yet, the most common maximum late fee disclosed in agreements submitted to the Bureau was $25, as driven by the practices of smaller banks and credit unions not in the top 20 issuers by asset size.[36] Finally, a small but growing number of issuers offer credit card products with no late fees.[37]

Some card issuers, however, may be disincentivized to lower late fee amounts below the safe harbor, given that the industry as a whole continues to rely on late fees as a source of revenue and many consumers may not shop for credit cards based on the amount of the late fee. For banks in the Y–14+ data, late fees represented 10 percent of charges to consumers in 2020, but individual card issuers' revenue from late fees varied.[38] The share of late fees for individual issuers in the Y–14+ data ranged from a minimum of four percent to a maximum of 31 percent of total consumer charges in 2019. Among issuers there is a strong correlation between reliance on late fees and concentration of subprime accounts. Yet, the industry as a whole continues to rely on late fees as a source of revenue.[39] Given the amount of revenue that late fees generate, card issuers may not have an incentive to charge late fees lower than the safe harbor amount.

In addition, many consumers may not shop for credit cards based on the amount of late fees, which also may lessen card issuers incentive to charge late fees lower than the safe harbor amount. Survey data suggest that other factors, such as rewards, annual fees, and annual percentage rate(s) (APR), drive credit card usage.[40] In addition, recent academic work [41] directly observed that credit card offers highlight rewards, annual fees, and APRs more than late fees based on the position of the information and the size of the font. Only 6.06 percent of the 611,797 card offers in their data spanning from 1999 to 2007 mentioned late fees on the front page, with an average font size of 9.56. In contrast, (1) rewards were displayed on the front page 93.68 to 100 percent of the time (depending on the type of rewards) with an average font size of 12.12 to 16.56; (2) the annual fee was disclosed on the front page 78.02 percent of the time with an average font size of 13.39; and (3) APRs were displayed on the front page 27.95

[20] 76 FR 79768 (Dec. 22, 2011); *see also* 81 FR 25323 (Apr. 28, 2016).

[21] 76 FR at 79822.

[22] Comment 52(b)(1)(ii)–2.

[23] *See* supra note 2 for a description of an additional safe harbor that applies to charge card accounts.

[24] Bureau of Consumer Fin. Prot., *Credit Card Late Fees,* at 13 (Mar. 2022) (Late Fee Report), *https://files.consumerfinance.gov/f/documents/cfpb_credit-card-late-fees_report_2022-03.pdf. See* part III.C for a description of the Y–14+ data.

[25] Bureau of Consumer Fin. Prot., *Card Act Report,* at 23 (Oct. 2013) (2013 Report), *http://files.consumerfinance.gov/f/201309_cfpb_card-act-report.pdf.* From 2008 to 2015, the Bureau used the CCDB to measure the amount of average late fees to include in the CARD Act reports that the Bureau releases every two years. In its 2017 report, the Bureau started using the Y–14 data to measure the amount of average late fees to include in its CARD Act reports and began using the Y–14+ data to calculate metrics including average late fee beginning with its 2019 report. *See* part III.C for a description of the Y–14 and Y–14+ data.

[26] *Id.*

[27] Late Fee Report, at 4.

[28] 2013 Report, at 23.

[29] Bureau of Consumer Fin. Prot., *The Consumer Credit Card Market,* at 69 (Dec. 2019) (2019 Report), *https://files.consumerfinance.gov/f/documents/cfpb_consumer-credit-card-market-report_2019.pdf.*

[30] Late Fee Report, at 6.

[31] Late Fee Report, at 5; Bureau of Consumer Fin. Prot., *The Consumer Credit Card Market,* at 117 (Sept. 2021) (2021 Report), *https://files.consumerfinance.gov/f/documents/cfpb_consumer-credit-card-market-report_2021.pdf.*

[32] *See* comment 52(b)(1)–1.i.A.

[33] Late Fee Report, at 14.

[34] *Id.*

[35] *Id.* The Credit Card Agreement Database is available at *http://www.consumerfinance.gov/credit-cards/agreements.*

[36] Late Fee Report, at 14.

[37] *Id.* at 15.

[38] *Id.* at 13.

[39] *Id.* at 14.

[40] Karen Augustine, *U.S. Consumers and Credit: Rising Usage,* Mercator Advisory Group, at 40 (2018).

[41] Hong Ru & Antoinette Schoar, *Do Credit Card Companies Screen for Behavioural Biases?* (Feb. 12, 2020), BIS Working Paper No. 842, *https://ssrn.com/abstract=3549532.*

percent of the time with an average font size of 13.02. The Bureau notes that the authors of the study explained that they excluded the post-2007 data ''to abstract from the impact of the 2008 financial crisis and the [CARD Act] in 2009.'' [42] However, the authors also stated that ''the main results are qualitatively and quantitatively very similar if we include data until 2016.'' [43]

F. Consumer Impact of Late Fees

Late fees represent over one-tenth of the $120 billion issuers charge to consumers in interest and fees, totaling over $14 billion in 2019.[44] A small share of accounts in low credit score tiers incur a high proportion of late fees.[45] Overall, the average deep subprime account in the Y–14 data (discussed in part III.C) was charged $138 in late fees in 2019, compared with $11 for the average superprime account.[46] The higher incidence of late fees for accounts in lower tiers, combined with higher average charges for repeat late fees within six billing cycles of the initial late fee, drives this disparity.[47]

Credit card accounts in the Y–14 data held by cardholders living in the U.S.' poorest neighborhoods paid twice as much on average in total late fees than those in the richest areas.[48] Cardholders in majority-Black areas paid more in late fees for each card they held with major credit card issuers in 2019 than majority white areas.[49] And people in areas with the lowest rates of economic mobility paid nearly $10 more in late fee charges per account compared to people in areas with the highest rates of economic mobility.[50]

G. Other Consequences to Consumers of Late Payment

When a consumer does not make at least the minimum payment by the periodic statement due date, a late fee may not be the only consequence. However, the effect of a missed payment depends on cardholder conduct both prior to and after the due date.

For cardholders who typically pay their balance in full every month (so-called transactors), a late payment generally means both a late fee and new interest incurred for carrying or revolving a balance. For the cardholders who do not roll over a balance in the month before or after a late fee is assessed, the loss of a grace period [51] and coinciding interest charges may pose a similar or even greater burden than the late fee itself. For cardholders who regularly revolve a balance from one month to the next, a late fee is the main financial consequence of a missed payment if the payment is made prior to the next statement due date, as the additional interest charges on the unpaid minimum amount due for a limited number of days will likely be minimal.

However, if a consumer does not make at least the minimum payment due for more than one billing cycle, non-payment may carry more severe consequences. After approximately 30 days, consumers' credit scores may decline after issuers report the delinquency to credit bureaus. A card issuer also may take actions to reprice new transactions on the account according to a penalty rate, if permitted under § 1026.55(b)(3).[52] After 60 days, issuers may take action to reprice the entire outstanding balance on the account according to a penalty rate, if permitted under § 1026.55(b)(4). At any point as an account becomes more delinquent, an issuer may take steps to reduce a cardholder's credit line or suspend use of the card, limit their earning or redemption of rewards, or increase outreach to collect the outstanding debt. After 180 days of delinquency, an issuer will typically close and charge off the credit card account which may carry a large and long-term financial penalty for a consumer.

III. Summary of Rulemaking Process

A. Advance Notice of Proposed Rulemaking

On June 22, 2022, the Bureau issued an advance notice of proposed rulemaking (ANPR) seeking information from credit card issuers, consumer groups, and the public regarding credit card late fees and late payments, and card issuers' revenue and expenses.[53] Areas of inquiry included: (1) factors used by card issuers to set late fee amounts; (2) card issuers' costs and losses associated with late payments; (3) the deterrent effects of late fees; (4) cardholders' late payment behavior; (5) methods that card issuers use to facilitate or encourage timely payments, including automatic payment and notifications; (6) card issuers' use of the late fee safe harbor provisions in Regulation Z; and (7) card issuers' revenue and expenses related to their domestic consumer credit card operations. The Bureau received 43 comments in response to the ANPR.

Consumer group commenters generally recommended that the Bureau: (1) more closely tailor late fees to the amount of the debt owed by the cardholder, such as by establishing a sliding scale for the safe harbor amount so that late fees are proportional to the account balance and by capping the amount of late fees that can be imposed for an account during the year; (2) require a mandatory waiting period of several days before a late fee can be assessed; (3) decline to incorporate deterrence as a factor in setting late fee rules and safe harbor amounts; (4) consider the savings to issuers of providing online-only statements in determining the costs of collecting late payments, (5) require a postal mail notification before a late fee can be imposed for an online-only account; and (6) exclude the costs of being a furnisher of information to consumer reporting agencies from the costs of collecting late payments.

Card issuers and their trade groups that commented on the ANPR generally opposed revisions to Regulation Z's safe harbor provisions related to late fees, including lowering the safe harbor amounts. Several industry trade groups asserted that although the current safe harbor amounts do not cover all the costs associated with late payments and are not as effective a deterrent as higher fees would be, they cover a significant portion of issuer costs, deter late payments, and provide legal certainty to card issuers. Card issuers and trade group commenters, however, did not provide detailed information on the type of costs, and the dollar amount of the costs, they incur to collect late payments. Card issuers and their trade groups commenters also generally opposed eliminating the safe harbor provisions and requiring card issuers to use the cost analysis provisions in § 1026.52(b)(1)(i) to determine the amount of late fees a card issuer is permitted to charge. Several industry trade group commenters asserted that reducing or eliminating the safe harbor would reduce credit access and increase the cost of credit. One trade group commenter asserted that smaller

[42] *Id.* at 12.

[43] *Id.*

[44] Late Fee Report, at 4.

[45] *Id.* at 7.

[46] *Id.* at 8.

[47] *Id.*

[48] *Id.* at 9.

[49] *Id.* at 10.

[50] *Id.* at 11.

[51] A grace period is a period within which credit extended may be repaid without incurring a finance charge due to a periodic interest rate. *See, e.g.,* § 1026.6(b)(2)(v) and comments 5(b)(2)(ii)–3.i and 54(a)(1)–2.

[52] If a consumer does not make the required payment by the due date, § 1026.55(b)(3) permits a card issuer to take actions to reprice new transactions on the account according to a penalty rate in certain circumstances. The Bureau understands, however, that most card issuers do not take actions to reprice new transactions to the penalty rate until the consumer is more than 60 days late. 2021 Report, at 51.

[53] 87 FR 38679 (June 29, 2022).

creditors and community banks, particularly those that extend credit to consumers who are trying to build or repair their credit, have proportionately higher compliance costs and would face the most risk if the safe harbor was reduced or eliminated, limiting their ability to continue to offer credit products at the same terms. Several industry trade group commenters also asserted that because lowering the safe harbor would have a significant impact on small financial institutions, the Bureau must comply with the Small Business Regulatory Enforcement Fairness Act (SBREFA) by convening a SBREFA panel in any late fee rulemaking. Several industry trade group commenters also indicated that if the safe harbor were eliminated, the Bureau would need to provide significantly more detail and clarity around the costs included in the late fee amount calculation under § 1026.52(b)(1)(i).

B. CARD Act Consultation With Certain Federal Agencies

Consistent with the CARD Act, the Bureau consulted with the following agencies regarding rules that implement TILA section 149: (1) the Comptroller of the Currency; (2) the Board of Directors of the Federal Deposit Insurance Corporation; and (3) the National Credit Union Administration Board.[54] The Bureau also consulted with the Board and several other federal agencies, as discussed in part VII.

C. Y–14 Data Considered for This Proposal

As discussed in more detail in the section-by-section analysis in part V, the Bureau has considered data in developing this proposal that the Board collects as part of its Y–14M (Y–14) data. Since June 2012, the Board has collected these data monthly from bank holding companies with total consolidated assets exceeding $50 billion. For this collection, surveyed financial institutions report comprehensive data on their assets on the last business day of each calendar month. These data are used to support the Board's supervisory stress test models and provide one source of data for the Bureau's biennial report to Congress on the consumer credit card market.[55] These data contain reported information on the following four metrics used in developing this proposal:

Late Fee Income: Reported net fee income assessed for late or nonpayment accounts in a given domestic credit card portfolio by card type (*e.g.,* general purpose or private label). This is late fee income for the Bureau's purposes, as discussed in the section-by-section analysis of § 1026.52(b)(1)(ii).

Collection Costs: Reported costs incurred to collect problem credits that include the total collection cost of delinquent, recovery, and bankrupt accounts. Issuers report these aggregate costs monthly for their domestic credit card portfolios and separately by credit card type.[56] These reported costs do not include losses and associated costs.[57]

Late Fee Amount: Reported amount of the late fee charged on a particular account in a particular month.

Total Required Payments: Reported total payment amount on a particular account in a particular month, including any missed payments or fees that were required to be paid in a particular billing cycle. This typically includes the minimum payment due, past due payments, and any amount reported as over the credit limit.

The Y–14 data received by the Bureau cover the period from the middle of 2012 through September 2022 and are provided by issuers that accounted for just under 70 percent of outstanding balances on U.S. consumer credit cards as of year-end 2020. For the purposes of the analysis using these data as described in part V, the Bureau only considered account- and portfolio-level data for issuers in a given month for consumer general purpose and private label credit cards for which there existed data on late fee income, collection costs, late fee amounts, and total required payments in the Y–14 data. With respect to credit card data, the Bureau receives the complete portfolio data (including late fee income and collection costs) for all the card issuers included in the data collection. The Bureau receives only a random 40 percent subsample of account information (including late fee amounts and total required payments) reported by card issuers included in the data collection.

Collection costs in the Y–14 data include both pre-charge-off and post-charge-off collection costs. As discussed in the section-by-section analysis of § 1026.52(b)(1)(i), the Bureau proposes to amend comment 52(b)(1)(i)–2.i to clarify that costs for purposes of the cost analysis provisions in § 1026.52(b)(1)(i) for determining penalty fee amounts do not include any collection costs that are incurred after an account is charged off pursuant to loan loss provisions.

Consistent with that proposed clarification, the Bureau estimated the percentage of collection costs that may occur after charge-off so that they could be excluded from the collection costs in the Y–14 data. The Bureau notes that the most significant post-charge-off collection costs are likely to be commissions paid to third-party debt collectors for charged-off accounts. The Bureau understands that such commission payments, made to third-party debt collection companies, would be made almost exclusively in connection with accounts that have been charged off, and represent a conservative estimate of post-charge-off collection costs, as there may be other costs associated with collections post-charge-off beyond such commission payments.

The Bureau estimated from debt collection reports the commission expenses that six major card issuers paid in 2019 and 2020, representing 91 percent of balances and 93 percent of collection costs among portfolios with positive collection expenses reported in the Y–14 data in the twelve months leading up to August 2022.[58] The methodology for estimating post-charge-off commissions considered the amount of charged-off balances and then estimated the commission on the volume of recovered balances by using the recovery and commission rates.[59]

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[54] 15 U.S.C. 1665d(b) and 1665d(e).

[55] *See* Bd. of Governors. of the Fed. Rsrv. Sys., Report Forms FR Y–14M, *https://www.federalreserve.gov/apps/reportforms/reportdetail.aspx?sOoYJ+5BzDYnbIw+U9pka3sMtCMopzoV* (for more information on the Y–14M collection). The Bureau is one of several government agencies with whom the Board shares the data. Information in the Y–14 data do not include any personal identifiers. Additionally, accounts associated with the same consumer are not linked across or within issuers. The Y–14 data also does not include transaction-level data pertaining to consumer purchases.

[56] Types include General Purpose, Private Label, Business, and Corporate cards.

[57] Issuers report projected losses, the dollar amount of charge-offs and any associated recoveries, interest expense, and loan loss provisions separately.

[58] As part of its review of the practices of credit card issuers for its biennial review of the consumer credit card market, the Bureau surveys several large issuers to better understand practices and trends in credit card debt collection. These data provided in response to data filing orders served as the basis of this calculation. For more information on these data, *see* 2021 Report, at 17.

[59] For example, if an issuer had a total of $1 million in newly charged-off balances in a given year, a cumulative recovery rate for that year of five percent, and a post-charge-off commission rate of 20 percent, the Bureau would estimate the post-charge-off commission costs to be $10,000. To calculate the post-charge-off collection costs as a share of total cost of collections, the Bureau then divided the estimated post-charge-off commission costs by the total collection costs the bank reported in the Y–14 data. For issuers who sell debt, the cost of collections calculation uses charge-off balances net of asset sales. The commission rate for each issuer is an average weighted by the share of post-charge-off balances in each tier placement (*e.g.,* primary, secondary, and tertiary placements).

Based on these commission expenses that these six major card issuers paid in 2019 and 2020 to third-party debt collectors for charged-off accounts, the Bureau estimated that these post-charge-off costs are around 25 percent of total collection costs for these issuers; the average ratio was 27 percent in 2019 and 21 percent in 2020. In 2019, the median ratio of estimated post-charge-off commission costs to annual collection costs in the Y–14 for individual issuers was 28 percent; in 2020, it was 23 percent. Based on this data, the Bureau estimated that pre-charge-off collection costs were equal to 75 percent of the collection costs included in the Y–14 data for purposes of its analysis related to the proposed changes to the safe harbor thresholds for late fees in § 1026.52(b)(1)(ii).

As discussed in more detail in the section-by-section analysis in part V, the Bureau also considered Y–14+ data in developing this proposal. The Y–14+ data includes information from the Board's Y–14 data and a diverse group of specialized issuers.

IV. Legal Authority

A. Section 1022 of the Dodd-Frank Act

Section 1022(b)(1) of the Dodd-Frank Act authorizes the Bureau to prescribe rules ''as may be necessary or appropriate to enable the Bureau to administer and carry out the purposes and objectives of the Federal consumer financial laws, and to prevent evasions thereof.'' [60] Among other statutes, title X of the Dodd-Frank Act and TILA are Federal consumer financial laws.[61] Accordingly, in issuing this proposed rule, the Bureau proposes to exercise its authority under Dodd-Frank Act section 1022(b)(1) to prescribe rules under TILA and title X that carry out the purposes and objectives and prevent evasion of those laws.

B. The Truth in Lending Act

As amended by the Dodd-Frank Act, TILA section 105(a) [62] directs the Bureau to prescribe regulations to carry out the purposes of TILA, and provides that such regulations may contain additional requirements, classifications, differentiations, or other provisions, and may provide for such adjustments and exceptions for all or any class of transactions, that, in the judgment of the Bureau, are necessary or proper to effectuate the purposes of TILA, to prevent circumvention or evasion thereof, or to facilitate compliance. Pursuant to TILA section 102(a), a purpose of TILA is to assure a meaningful disclosure of credit terms to enable the consumer to avoid the uninformed use of credit and compare more readily the various credit terms available to the consumer. This stated purpose is tied to Congress's finding that economic stabilization would be enhanced and competition among the various financial institutions and other firms engaged in the extension of consumer credit would be strengthened by the informed use of credit.[63] Thus, strengthened competition among financial institutions is a goal of TILA, achieved through the effectuation of TILA's purposes.

As described above, the CARD Act was signed into law on May 22, 2009,[64] and the Act amended TILA [65] by adding section 149, which provides, among other things, that the amount of any penalty fee with respect to a credit card account under an open-end consumer credit plan in connection with any omission with respect to, or violation of, the cardholder agreement, including any late payment fee or any other penalty fee or charge, must be ''reasonable and proportional'' to such omission or violation.[66]

At the time of its passage, the CARD Act required the Board to issue rules establishing standards for assessing the reasonableness and proportionality of such penalty fees, with a statutory deadline of February 22, 2010 for issuing this required rule.[67] The Act also authorized the Board to establish different standards for different types of fees and charges, as appropriate.[68] The CARD Act also allowed, but did not require, the Board to issue rules to provide for a safe harbor amount for any such penalty fee that is presumed to be reasonable and proportional to such omissions or violations.[69] This grant of discretionary authority did not include a deadline. The Board issued a rule on June 29, 2010, completing the required rulemaking (now contained in the Bureau's Regulation Z, 12 CFR 1026.52(b)(1)(i)) and adding a discretionary portion (now contained in the Bureau's Regulation Z, 12 CFR 1026.52(b)(1)(ii)) with safe harbors.

On July 21, 2011, the Board's rulemaking authority to implement the provisions of TILA, including TILA section 149, transferred to the Bureau pursuant to sections 1061 and 1100A of the Dodd-Frank Act.[70]

For the reasons discussed in this proposal, the Bureau proposes to amend certain provisions in Regulation Z that impact the amount of late fees that card issuers can charge to carry out TILA's purposes and proposes such additional requirements, adjustments, and exceptions as, in the Bureau's judgment, may be necessary and proper to carry out the purposes of TILA, prevent circumvention or evasion thereof, or to facilitate compliance. In developing these aspects of this proposal pursuant to its authority under TILA section 105(a), the Bureau has considered the purposes of TILA, including ensuring meaningful disclosures, facilitating consumers' ability to compare credit terms, and helping consumers avoid the uninformed use of credit, and the findings of TILA, including strengthening competition among financial institutions and promoting economic stabilization.

The Bureau also has analyzed whether the current safe harbor threshold amounts for late fees are reasonable and proportional to a cardholder's omission or violation. In considering the appropriate amount, the Bureau is guided by factors including (1) the cost incurred by the creditor from an omission or violation; (2) the deterrence of omissions or violations by the cardholder; (3) the conduct of the cardholder; and (4) such other factors deemed necessary or appropriate.

V. Section-by-Section Analysis

Section 1026.7 Periodic Statement

7(b) Rules Affecting Open-End (Not Home-Secured) Plans

7(b)(11) Due Date; Late Payment Costs

Section 1026.7(b) sets forth the disclosure requirements for periodic statements that apply to open-end (not home-secured) plans. Section 1026.7(b)(11) generally requires that for a credit card account under an open-end (not home-secured) consumer credit plan, a card issuer must provide on each periodic statement: (1) the due date for a payment and the due date must be the same day of the month for each billing cycle; and (2) the amount of any late

[60] 12 U.S.C. 5512(b)(1).

[61] Dodd-Frank Act section 1002(14); codified at 12 U.S.C. 5481(14) (defining ''Federal consumer financial law'' to include the ''enumerated consumer laws'' and the provisions of title X of the Dodd-Frank Act); Dodd-Frank Act section 1002(12); codified at 12 U.S.C. 5481(12) (defining ''enumerated consumer laws'' to include TILA).

[62] 15 U.S.C. 1604(a).

[63] TILA section 102(a), codified at 15 U.S.C. 1601(a).

[64] Public Law 111–24, 123 Stat. 1734 (2009).

[65] 15 U.S.C. 1601 *et seq.*

[66] CARD Act section 102, 123 Stat. 1740 (15 U.S.C. 1665d(a)).

[67] CARD Act section 102, 123 Stat. 1740 (15 U.S.C. 1665d(b)).

[68] CARD Act section 102, 123 Stat. 1740 (15 U.S.C. 1665d(d)).

[69] CARD Act section 102, 123 Stat. 1740 (15 U.S.C. 1665d(e)).

[70] Public Law 111–203, 124 Stat. 1376 (2010).

payment fee and any increased periodic rate(s) (expressed as APRs) that may be imposed on the account as a result of a late payment.

Currently, comment 7(b)(11)–4 provides that for purposes of disclosing the amount of any late payment fee and any increased APR that may be imposed on the account as a result of a late payment under § 1026.7(b)(11), a card issuer that imposes a range of late payment fees or rates on a credit card account under an open-end (not home-secured) consumer credit plan may state the highest fee or rate along with an indication lower fees or rates could be imposed. Comment 7(b)(11)–4 also provides an example to illustrate how a card issuer may meet the standard set forth above, stating that a phrase indicating the late payment fee could be ''up to $29'' complies with this standard. The proposed rule would amend comment 7(b)(11)–4 to read ''up to $8'' so that the late fee amount in the example would be consistent with the proposed $8 late fee safe harbor amount set forth in proposed § 1026.52(b)(1)(ii).

Section 1026.52 Limitations on Fees

52(a) Limitations During First Year After Account Opening

52(a)(1) General Rule

Section 1026.52(a)(1) generally provides that the total amount of fees a consumer is required to pay with respect to a credit card account under an open-end (not home-secured) consumer credit plan during the first year after account opening must not exceed 25 percent of the credit limit in effect when the account is opened. Section 1026.52(a)(2) provides that late payment fees, over-the-limit fees, and returned-payment fees; or other fees that the consumer is not required to pay with respect to the account are excluded from the fee limitation set forth in § 1026.52(a)(1).

Comment 52(a)(1)–1 provides that the 25 percent limit in § 1026.52(a)(1) applies to fees that the card issuer charges to the account as well as to fees that the card issuer requires the consumer to pay with respect to the account through other means (such as through a payment from the consumer's asset account to the card issuer or from another credit account provided by the card issuer). Comment 52(a)(1)–1 also provides four examples to illustrate the provision set forth above. The two examples in comment 52(a)(1)–1.i and iv contain late fee amounts of $15. The proposed rule would amend the two examples in comment 52(a)(1)–1.i and iv to use a late fee amount of $8, so that the late fee amounts in the examples are consistent with the proposed $8 late fee safe harbor amount set forth in proposed § 1026.52(b)(1)(ii).

52(b) Limitations on Penalty Fees

52(b)(1) General Rule

Section 1026.52(b) provides that a card issuer must not impose a fee for violating the terms or other requirements of a credit card account under an open-end (not home-secured) consumer credit plan unless the issuer has determined that the dollar amount of the fee represents a reasonable proportion of the total costs incurred by the issuer for that type of violation as set forth in § 1026.52(b)(1)(i) (referred to herein as the cost analysis provisions) or complies with the safe harbor provisions set forth in § 1026.52(b)(1)(ii). It further provides that a card issuer must not impose such a fee unless the fee is consistent with certain prohibitions set forth in § 1026.52(b)(2), including a prohibition in § 1026.52(b)(2)(i)(A) on imposing a penalty fee that exceeds the dollar amount associated with the violation, which currently prohibits late fees that exceed 100 percent of the required minimum payment.[71] The commentary to § 1026.52(b) explains that penalty fees subject to its provisions include late fees, returned-payment fees, and fees for over-the-limit transactions, among others.[72]

As discussed in the section-by-section analysis of § 1026.52(b)(1)(ii) below, the Bureau proposes to amend § 1026.52(b)(1)(ii) to lower the safe harbor dollar amount for late fees to $8 (currently set at $30) and to provide that the higher safe harbor dollar amount for subsequent violations of the same type that occur during the same billing cycle or in one of the next six billing cycles (currently set at $41) does not apply to late fees.[73]

In addition, as discussed in more detail below, the Bureau proposes to provide that the current provision in § 1026.52(b)(1)(ii)(D) that provides for annual inflation adjustments for the safe harbor dollar amounts would not apply to the safe harbor amount for late fees. Also, as discussed in the section-by-section analysis of § 1026.52(b)(2)(i) below, the Bureau proposes to amend § 1026.52(b)(2)(i)(A) to provide that late fee amounts may not exceed 25 percent of the required minimum payment.

The Bureau also proposes one clarification that would apply to penalty fees generally. Specifically, the Bureau proposes to amend comment 52(b)(1)(i)–2.i to clarify that costs for purposes of the cost analysis provisions in § 1026.52(b)(1)(i) for determining penalty fee amounts do not include any collection costs that are incurred after an account is charged off pursuant to loan loss provisions.

The Bureau is not proposing to amend the lead-in text of § 1026.52(b)(1). However, for consistency with the proposed amendments to other provisions in § 1026.52(b) and for clarity, the Bureau proposes certain amendments to the commentary to § 1026.52(b) and (b)(1). Specifically, the Bureau proposes to amend comment 52(b)–1.i.A to clarify that a late payment fee or late fee is any fee imposed for a late payment and to include a cross-reference to § 1026.60(b)(9) and accompanying commentary for further guidance. The Bureau also proposes to amend comment 52(b)–2, which provides an illustrative example of how to round a penalty fee to the nearest whole dollar in compliance with the rule. The proposed amendments would reduce the dollar amounts of late fees in the example to reflect amounts that would be permissible under the Bureau's proposals to lower the late fee safe harbor amount to $8 and to cap late fees at 25 percent of the required minimum payment. In addition, the Bureau proposes to add new comment 52(b)–5 to clarify that any dollar amount examples in the commentary to § 1026.52(b) relating to the safe harbors in § 1026.52(b)(1) are based on the original historical safe-harbor thresholds of $25 and $35 for penalty fees other than late fees, and on the proposed threshold of $8 for late fees. This proposed clarification would help explain why the dollar amounts for penalty fees other than late fees are different from the ones set forth in the regulatory text in § 1026.52(b)(1)(ii)(A) and (B).

The Bureau also proposes to amend comments 52(b)(1)–1.i.B and C, which illustrate the relationship between the cost analysis provisions in § 1026.52(b)(1)(i) and the safe harbor provisions in § 1026.52(b)(1)(ii). The Bureau proposes to amend the illustrative example in comment 52(b)(1)–1.i.B to reflect a late fee amount consistent with the proposal. In addition, because the Bureau proposes to substantially amend the safe harbor provisions for late fees, the Bureau proposes to remove references to late fees from the illustrative examples in comment 52(b)(1)–1.i.C and replace

[71] *See* comment 52(b)(2)(i)–1.

[72] *See* comment 52(b)(1)–1.

[73] As discussed in the section-by-section analysis of § 1026.52(b)(1)(ii)(C) below, the Bureau is not proposing to lower or otherwise change the safe harbor amount of a late fee that card issuers may impose when a charge card account becomes seriously delinquent.

them with references to over-the-limit fees.

In addition, the Bureau proposes to amend comment 52(b)(1)–1.ii, which illustrates the relationship between the penalty fee limitations in § 1026.52(b)(1) and the prohibitions in § 1026.52(b)(2). The proposed amendments would reduce the dollar amount of a late fee in the example to reflect an amount that would be consistent with the Bureau's proposal to lower the late fee safe harbor amount.

The Bureau solicits comment on all aspects of these proposed amendments to the commentary to § 1026.52(b) and (b)(1), including comment on what additional amendments may be needed to help ensure clarity and compliance certainty.

52(b)(1)(i) Fees Based on Costs

As noted above, under the cost analysis provisions in § 1026.52(b)(1)(i), a card issuer may impose a fee for violating the terms or other requirements of an account consistent with the general rule in § 1026.52(b)(1) if the card issuer has determined that the dollar amount of the fee represents a reasonable proportion of the total costs incurred by the card issuer as a result of that type of violation. Section 1026.52(b)(1)(i) further provides that a card issuer must reevaluate that determination at least once every 12 months and sets forth certain other requirements and conditions that apply if, as a result of the reevaluation, the card issuer determines that either a lower or higher fee represents a reasonable proportion of the total costs incurred by the card issuer as a result of that type of violation.

The Bureau is not proposing to amend the text of § 1026.52(b)(1)(i). However, for purposes of clarity and compliance certainty, the Bureau proposes to revise comment 52(b)(1)(i)–2.i to clarify that the costs that card issuers can consider for purposes of determining the amount of a penalty fee under the cost analysis provisions in § 1026.52(b)(1)(i) do not include collection costs that are incurred after an account is charged off in accordance with loan-loss provisions.

Comment 52(b)(1)(i)–1 currently provides that card issuers may include in the costs for determining the amount of a penalty fee ''the costs incurred . . . as a result of [the] violation.'' Comment 52(b)(1)(i)–2 addresses amounts not considered costs incurred by a card issuer as a result of violations of the terms or other requirements of an account for purposes of § 1026.52(b)(1)(i). Comment 52(b)(1)(i)–2.i provides that one such amount that cannot be considered as costs incurred for purposes of § 1026.52(b)(1)(i) are losses and associated costs (including the cost of holding reserves against potential losses and the cost of funding delinquent accounts).

The Bureau proposes to amend comment 52(b)(1)(i)–2.i to clarify the ''losses and associated costs'' that card issuers may not consider as costs incurred for purposes of § 1026.52(b)(1)(i) include any collection costs that are incurred after an account is charged off in accordance with loan-loss provisions. The Bureau's proposal, therefore, would make it explicit that for any collection costs that a card issuer incurs after an account has been charged off are not considered costs incurred for purposes of § 1026.52(b)(1)(i). The Bureau understands that when an account has been charged off, the card issuer has written the account off as a loss; therefore, any cost in collecting amounts owed to a card issuer that are incurred post-charge-off is related to mitigating a loss as opposed to the cost of a violation of the account terms. As the Board noted in its 2010 Final Rule ''it would be inconsistent with the purpose of the [CARD Act] to permit card issuers to begin recovering losses and associated costs through penalty fees rather than through upfront rates.'' [74]

The Bureau received two comments to the ANPR that indicated there may be a need to clarify that costs of collecting amounts owed to a card issuer incurred after an account is charged off are costs related to a loss and, therefore, cannot be considered as costs incurred for a violation of account terms for purposes of § 1026.52(b)(1)(i). For instance, one industry trade group commenter noted that, for example, late fees are meant to cover, among other things, the charge-off costs associated with late payments. Another industry credit union commenter similarly explained that late fees help offset the charge-off on accounts not paid by consumers. Given the two comments suggesting potential confusion, the Bureau proposes to clarify that such costs cannot be considered for purposes of § 1026.52(b)(1)(i).

The Bureau solicits comment on this proposed clarification of the commentary to § 1026.52(b)(1)(i), including comment on whether any additional clarification may be needed. The Bureau also solicits comment on whether there are other specific clarifications that should be made to the provisions of the commentary providing guidance on how to perform a cost analysis under the rule.

[74] 75 FR 37526, 37538 (June 29, 2010).

52(b)(1)(ii) Safe Harbors

Overview of Proposed Amendments to Late Fee Safe Harbor Provisions

As noted in part I, the Bureau is concerned that (1) the safe harbor dollar amounts for late fees currently set forth in § 1026.52(b)(1)(ii) are not reasonable and proportional to the omission or violation to which the fee relates; (2) the current higher safe harbor threshold for late fees for subsequent violations of the same type in the same billing cycle or in one of the next six billing cycles is higher than is justified based on consumer conduct and to deter future violations and, indeed, a late fee that is too high could interfere with the consumers' ability to make future payments on the account; and (3) additional restrictions on late fees may be needed to ensure that late fees are reasonable and proportional. To address these concerns, the Bureau proposes to amend § 1026.52(b)(1)(ii) to lower the safe harbor amounts for late fees—currently set at $30 and $41 for a first and subsequent violation, respectively—to a late fee amount of $8 for the first and subsequent violations.[75] The Bureau's proposal would eliminate the higher safe harbor amount for subsequent late payment violations. As discussed below, based on analysis of available evidence and consideration of the relevant factors, the Bureau preliminarily determines that a late fee amount of $8 for the first and subsequent violations is presumed to be reasonable and proportional to the late payment violation to which the fee relates. In addition, for the reasons discussed in the section-by-section analysis of § 1026.52(b)(1)(ii)(D), the Bureau proposes to no longer apply to the late fee safe harbor amount current § 1026.52(b)(1)(ii)(D) that provides for annual inflation adjustments for the safe harbor dollar amounts.

The Bureau is not proposing at this time to similarly amend the safe harbor provisions in § 1026.52(b)(1)(ii) as they apply to other types of penalty fees, including returned-payment fees, fees for over-the-limit transactions, and declined access check fees. The Bureau is limiting the proposed amendments to late fees because the $14 billion in late fees charged in 2019 account for nearly 99 percent of all penalty fees imposed by major card issuers in the Y–14+

[75] As discussed in the section-by-section analysis of § 1026.52(b)(1)(ii)(C) below, the Bureau is not proposing to lower or otherwise change the safe harbor amount of a late fee that card issuers may impose when a charge card account becomes seriously delinquent.

data [76] and, as such, pose far greater consumer protection concerns than do other penalty fees totaling less than $0.2 billion that year. Moreover, as a result of their prevalence, late fees have produced a substantial amount of data and other evidence that prompts and forms the basis of this proposal. Further, the Bureau has determined that proposing to lower the safe harbor amounts only for late fees is consistent with its authority under TILA section 149(d), which authorizes the Bureau, in issuing rules to implement the CARD Act's penalty fee provisions, to establish ''different standards for different types of fees and charges, as appropriate.'' [77] Nonetheless, as discussed below, the Bureau solicits comment on several issues related to penalty fees generally, including whether the safe harbor dollar amount in § 1026.52(b)(1)(ii)(A) should be similarly lowered for all penalty fees, and the higher safe harbor amount provision in § 1026.52(b)(1)(ii)(B) should be similarly eliminated for all penalty fees.

The Board's Implementing Rule and Findings

In the 2010 Final Rule implementing TILA section 149, the Board established penalty fee safe harbor amounts of $25 for the first violation and $35 for any additional violations of the same type that occur during the same billing cycle or in one of the next six billing cycles. In doing so, the Board indicated that it ''believes that these amounts are generally consistent with the statutory factors of cost, deterrence, and consumer conduct.'' [78] In interpreting TILA section 149(a), the Board found that ''it appears that Congress intended the words 'reasonable and proportional' . . . to require that there be a reasonable and generally consistent relationship between the dollar amounts of credit card penalty fees and the violations for which those fees are imposed, while providing the Board with substantial discretion in implementing that requirement.'' [79]

The Board's Consideration of Costs. The cost-related data on which the Board relied was limited. Although the Board received more than 22,000 comments on its proposed rule, the Board noted that ''relatively few provided any data'' supporting a particular safe harbor amount.[80] While one commenter suggested the average cost of collecting late payments for credit card accounts issued by the largest issuers was $28, the Board noted the comment ''significantly overstates the fee amounts necessary to cover the costs incurred by large issuers as a result of violations,'' as it included costs not incurred as a result of violations, such as the cost of funding balances that would have been charged off regardless of fees.[81]

Given these limitations, instead of relying on data related to the costs of collecting late payments in setting the safe harbor dollar amounts in its Regulation Z, § 226.52(b)(1)(ii)(A) and (B), the Board primarily considered the following information in setting the safe harbor dollar amounts: (1) the dollar amounts of late fees currently charged by credit card issuers; (2) the dollar amounts of late fees charged with respect to deposit accounts and consumer credit accounts other than credit cards; (3) State and local laws regulating late fees; (4) the safe harbor threshold for credit card default charges established by the United Kingdom's Office of Fair Trading (OFT) in 2006; (5) data related to deterrence that provides evidence on whether the experience of incurring a late payment fee makes consumers less likely to pay late for a period of time; and (6) data submitted by a large credit card issuer that indicated that consumers who pay late multiple times over a six-month period generally present a significantly greater credit risk to issuers than consumers who pay late a single time.

In establishing the safe harbor amounts, the Board concluded that ''it is not possible based on the available information to set safe harbor amounts that precisely reflect the costs incurred by a widely diverse group of card issuers and that deter the optimal number of consumers from future violations,'' [82] and stated its belief that the safe harbor amounts established in the rule were ''generally sufficient to cover issuers' costs and to deter future violations.'' [83] The Board further concluded that, based on the comments received in response to its proposal, the $25 safe harbor in § 226.52(b)(1)(ii)(A) for the first violation was sufficient to cover the costs incurred by most small issuers as a result of violations.[84]

With respect to late payments, the Board stated its belief that large issuers generally incur fewer collection and other costs on accounts that experience a single late payment and then pay on time for the next six billing cycles than on accounts that experience multiple late payments during that period.[85] The Board further reasoned that even if $25 is not sufficient to offset all of the costs incurred by some large issuers as a result of a single late payment, those issuers will be able to recoup any unrecovered costs through upfront APRs and other pricing strategies.[86]

With respect to the higher safe harbor amount in § 226.52(b)(1)(ii)(B), the Board explained its belief that when an account experiences additional violations that occur during the same billing cycle or in one of the six billing cycles following the initial violation, $35 would generally be sufficient to cover any increase in the costs incurred by the card issuer.[87] As discussed in more detail below, the Board also explained its belief that the $35 safe harbor amount would have a reasonable deterrent effect on additional violations [88] and was consistent with the consumer's conduct in engaging in multiple violations of the same type within six billing cycles.[89]

The Board's Consideration of Deterrence. The Board did not expressly discuss how it took deterrence into account in setting the initial $25 penalty fee amount; instead, the Board limited its discussion of that factor to the role it played in the Board's decision to set a higher safe harbor amount for any additional violation of the same type that occurred during the same billing cycle or in one of the next six billing cycles. While the Board noted that it considered deterrence in setting a higher amount generally, the Board did not have specific data justifying the $35 amount. The Board noted that one commenter on the proposal submitted the results of applying two deterrence modeling methods to data gathered from all leading credit card issuers in the U.S. According to the commenter, these models estimated that fees of $28 or less have relatively little deterrent effect on late payments but that higher fees are a statistically significant contributor to sustaining lower levels of delinquent behavior. While the Board questioned the assumptions used to arrive at the results in these modeling methods, the Board did accept that increases in the amount of penalty fees can affect the frequency of violations.[90]

With respect to the higher $35 fee for repeat penalty fees that occur during the same billing cycle or in one of the next

[76] Late Fee Report, at 13.
[77] 15 U.S.C. 1665d(c).
[78] 75 FR 37526, 37527 (June 29, 2010).
[79] *Id.* at 37532.
[80] *Id.* at 37541.
[81] *Id.*
[82] *Id.* at 37544.
[83] *Id.*
[84] *Id.* at 37542.
[85] *Id.*
[86] *Id.*
[87] *Id.*
[88] *Id.*
[89] *Id.* at 37543.
[90] *Id.* at 37541.

six billing cycles, the Board explained its belief that a higher penalty fee amount is consistent with the deterrence factor set forth in TILA 149(c)(2) insofar as—after a violation has occurred—the amount of the fee increases to deter additional violations of the same type that occur during the same billing cycle or in one of the next six billing cycles.[91] The Board also explained its belief that although upfront disclosure of a penalty fee may be sufficient to deter some consumers from engaging in certain conduct, other consumers may be deterred by the imposition of the fee itself. For these consumers, the Board explained its belief ''that imposition of a higher fee when multiple violations occur will have a significant deterrent effect on future violations.'' [92] The Board specifically pointed to one study of four million credit card statements, which found that a consumer who incurs a late payment fee is 40 percent less likely to incur a late payment fee during the next month compared to a consumer who was not late, although this effect depreciates approximately 10 percent each month.[93] Although this study indicated that the imposition of a penalty fee may cease to have a deterrent effect on future violations after four months, the Board concluded that imposing an increased fee for additional violations of the same type that occur during the same billing cycle or in one of the next six billing cycles is consistent with the intent of the CARD Act. The Board pointed to this study as evidence indicating that, as a general matter, penalty fees may deter future violations of the account terms.[94]

The Board's Consideration of Consumer Conduct. The Board also took consumer conduct into account in adopting the higher $35 fee for repeat penalty fees that occur during the same billing cycle or in one of the next six billing cycles.[95] The Board explained its belief that ''multiple violations during a relatively short period can be associated with increased costs and credit risk and reflect a more serious form of consumer conduct than a single violation.'' [96] The Board noted that, based on data submitted by a large credit card issuer, consumers who pay late multiple times over a six-month period generally present a significantly greater credit risk than consumers who pay late a single time. The Board acknowledged that this data also indicates that consumers who pay late two or more times over longer periods (such as 12 or 24 months) are significantly riskier than consumers who pay late a single time. However, the Board did not explain how adding additional costs to these consumers would make them less of a credit risk or consider whether adding costs to consumers who are unable to pay could increase that risk.

The Board stated its belief that, when evaluating the conduct of consumers who have violated the terms or other requirements of an account, it is consistent with other provisions of the CARD Act to distinguish between those who repeat that conduct during the same billing cycle or in one of the next six billing cycles and those who do not.[97] Specifically, the Board noted that (1) TILA section 171(b)(4) provides that, if the APR that applies to a consumer's existing balance is increased because the account is more than 60 days delinquent, the increase must be terminated if the consumer makes the next six payments on time; and (2) TILA section 148 provides that, when an APR is increased based on the credit risk of the consumer or other factors, the card issuer must review the account at least once every six months to assess whether those factors have changed (including whether the consumer's credit risk has declined).[98] The Board did not, however, explain why this is relevant to the question of penalty fees.

The Bureau's Proposed Amendments to the Late Fee Safe Harbor Amounts

The safe harbor provisions in § 1026.52(b)(1)(ii) currently provide that a card issuer may impose a fee for violating the terms or other requirements of an account if the dollar amount of the fee does not exceed $30, as set forth in § 1026.52(b)(1)(ii)(A), or $41 for a violation of the same type that occurs during the same billing cycle or one of the next six billing cycles, as set forth in § 1026.52(b)(1)(ii)(B). In addition, § 1026.52(b)(1)(ii)(C) provides a special safe harbor that applies when a charge card account becomes seriously delinquent. Under that provision, when a card issuer has not received the required payment for two or more consecutive billing cycles on a charge card account that requires payment of outstanding balances in full at the end of each billing cycle, the issuer may impose a late payment fee that does not exceed 3 percent of the delinquent balance.

The Bureau proposes to amend § 1026.52(b)(1)(ii) to provide that a card issuer may impose a fee for a late payment on an account under the safe harbor if the dollar amount of the fee does not exceed $8.[99] The Bureau is further proposing to amend § 1026.52(b)(1)(ii) to provide that other than a fee for a late payment, a card issuer may impose a fee for violating the terms or other requirements of an account if the dollar amount of the fee does not exceed the safe harbor amounts in § 1026.52(b)(1)(ii)(A), or (B), as applicable. As such, the proposed $8 safe harbor amount for late fees would be a single fee amount; it would apply regardless of whether the fee is imposed for a first or subsequent violation. However, for all other penalty fees, card issuers could still charge amounts not exceeding the amounts in § 1026.52(b)(1)(ii)(A) and (B).

In addition, under the proposal, charge card issuers could still impose a fee pursuant to § 1026.52(b)(1)(ii)(C) when a charge card account becomes seriously delinquent as defined in the rule. The Bureau recognizes that the fee described in § 1026.52(b)(1)(ii)(C) is a form of late fee but, for the reasons discussed below, is not proposing to lower the safe harbor amount under this special provision for charge cards. However, as discussed in the section-by-section analysis of § 1026.52(b)(1)(ii)(C) below, the Bureau proposes to revise this provision for clarity to provide that a card issuer may impose a fee not exceeding 3 percent of the delinquent balance on a charge card account that requires payment of outstanding balances in full at the end of each billing cycle if the card issuer has not received the required payment for two or more consecutive billing cycles, notwithstanding the safe harbor late fee amount in proposed § 1026.52(b)(1)(ii). The Bureau emphasizes that the proposed $8 safe harbor late fee amount in proposed § 1026.52(b)(1)(ii) would still apply to fees imposed on a charge card account for late payments not meeting the description in § 1026.52(b)(1)(ii)(C).

After analyzing available evidence and considering the applicable statutory factors, the Bureau preliminarily determines that a late fee amount of $8 for the first and subsequent late payments is presumed to be reasonable

[91] *Id.* at 37533.

[92] *Id.*

[93] Sumit Agarwal *et al., Learning in the Credit Card Market* (April 24, 2013), *https://ssrn.com/abstract=1091623* or *http://dx.doi.org/10.2139/ssrn.1091623*. The Board reviewed a 2008 version of the paper.

[94] 75 FR 37526, 37533 n.24 (June 29, 2010).

[95] The Board did not refer to consumer conduct in setting the $25 safe harbor amount. *See id.* at 37527.

[96] *Id.*

[97] *Id.* at 37534.

[98] *Id.*

[99] As discussed in more detail below, there is one proposed exception related to charge card accounts as described in current § 1026.52(b)(1)(ii)(C).

and proportional to the late payment violation to which the fee relates.

The Bureau's Analysis of Data and Consideration of Statutory Factors

Costs. The Bureau has analyzed the Y–14 data and other information in considering the factor of the costs of a late payment violation to the card issuer. Based on that analysis, the Bureau has preliminarily determined that a late fee safe harbor amount of $8 for the first and subsequent violations would cover most issuers' costs from late payments while providing card issuers with compliance certainty and administrative simplicity and, therefore, reduce their compliance costs and burden. The Bureau requests comments on this preliminary determination, data used, or any alternatives to either.

In considering the costs of late payments to card issuers, the Bureau has taken into account only those (estimated) costs that card issuers are permitted to take into account for purposes of determining the amount of a late fee under the cost analysis provisions in § 1026.52(b)(1)(i) and related commentary, including the proposed clarification to comment 52(b)(1)(i)–2.i. As provided in the commentary to § 1026.52(b)(1)(i), such costs for late fees (1) include the costs associated with the collection of late payments, such as the costs associated with notifying consumers of delinquencies and resolving delinquencies (including the establishment of workout and temporary hardship arrangements); and (2) exclude losses and associated costs (including the cost of holding reserves against potential losses and the cost of funding delinquent accounts). As discussed in the section-by-section analysis of § 1026.52(b)(1)(i), the Bureau proposes to clarify that costs for purposes of the cost analysis provisions in § 1026.52(b)(1)(i) for determining penalty fee amounts do not include any collection costs that are incurred after an account is charged off pursuant to loan loss provisions. The Bureau preliminarily finds that considering pre-charge-off collection costs as the ''costs'' of a late payment is consistent with Congress' intent to: (1) allow card issuers generally to use late fees to pass on to consumers the costs issuers incur to collect late payments or missed payments; (2) ensure that those costs are spread among consumers and that no individual consumer bears an unreasonable or disproportionate share; and (3) prevent card issuers from recovering losses and associated costs through late fees rather than through upfront rates.

As discussed in part III.C, the reported collection costs in the Y–14 data (1) include costs incurred to collect problem credits that includes the total collection cost of delinquent, recovery, and bankrupt accounts, and (2) do not include losses and associated costs. The Bureau concludes that the collection costs data in the Y–14 are consistent with the costs included for the cost analysis provisions in § 1026.52(b)(1)(i) except that the collection costs in the Y–14 data include post-charge-off collection costs. As discussed in part III.C, the Bureau has estimated that approximately 75 percent of collection costs incurred by card issuers are incurred pre-charge-off. Thus, as discussed in part III.C, the Bureau's estimate of pre-charge-off collection costs is based on only 75 percent of the collection costs in the Y–14 data for purposes of its analysis related to the proposed changes to the safe harbor thresholds in § 1026.52(b)(1)(ii), as discussed in more detail below.

In developing the proposed late fee safe harbor amount, the Bureau carefully considered several sources of data and other information to determine the amount that would cover a reasonable and proportional amount of card issuers' pre-charge-off collection costs. As discussed in part III.C, and described in detail below, the Bureau reviewed and analyzed major issuers' late fee income, collection costs, late fee amounts, and required payment information contained in the Y–14 data, a source that was not available when the Board set the initial safe harbor amounts in 2010. That analysis indicates that late fees generally generate revenue that is multiple times higher than issuers' collection costs. The Bureau also reviewed issuers' stated late fee amounts in card agreements that issuers are required by the CARD Act to submit quarterly to the Bureau. Based on this data, the Bureau expects that even if late fees were reduced to one-fifth of current levels (implying late fees of $8 or less), most issuers would recover pre-charge-off collection costs.

To estimate the fee income to collection cost ratio, the Bureau used the late fee income data and 75 percent of the collection costs contained in the Y–14 data (referred to below as ''estimated pre-charge-off collection costs'').[100] Using the Y–14 data, the Bureau analyzed monthly late fee income and estimated pre-charge-off collection costs for the consumer segments of major issuers' credit card portfolios, namely the consumer general purpose and private label portfolios. For the 16 consumer portfolios with continuous cost data for the first three quarters of 2022 (adding up to about 73 percent of total consumer credit card balances at the end of September 2022), total late fee income in the first three quarters added up to $4.46 billion, while total collection costs added up to $1.19 billion with pre-charge-off collection costs estimated to be $896 million.

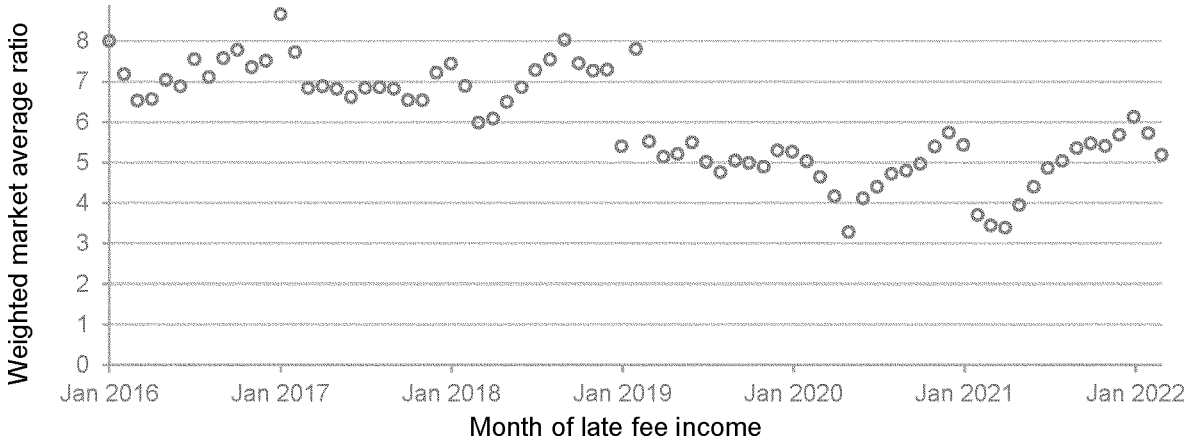
In reviewing the monthly data, the Bureau observed that late payments exhibit seasonal patterns. The Bureau also considered that there may be a delay between when a late fee was assessed and when the issuer incurs substantial collection costs associated with the account. For these reasons, the Bureau compared each month's late fee income for a particular portfolio to the portfolio's average estimated pre-charge-off collection costs for that month, where that estimate was based on estimated pre-charge-off collection costs that occurred two through six months later.[101] The Bureau developed monthly estimates of this late fee income-to-cost ratio for each year from 2013 up to early 2022. The analysis showed that an average of this ratio across issuers and market segments, weighted by the number of accounts reported in the Y–14 data, has been fairly stable since early 2019 (and was higher before 2019). As shown in Figure 1 below, late fee income has always been higher than three times subsequent estimated pre-charge-off collection costs, and more than four times as high in all but five pandemic months (May 2020 and February–May 2021, coinciding with pandemic stimulus payments, when there was a reduction in late fee income without a corresponding decline in average collection costs in subsequent months). Since August 2021, late fee

[100] For additional information and data related to this late fee income to collection cost ratio, *see* Bureau of Consumer Fin. Prot., *Credit Card Late Fees: Revenue and Collection Costs at Large Bank Holding Companies,* (Jan. 2023) (Revenue-Cost Report), *https://files.consumerfinance.gov/f/documents/cfpb_credit-card-late-fees-revenue-and-collection-costs-at-large-bank-holding-companies_2023-01.pdf.*

[101] For example, if an issuer were to report late fee income of $15 million in January for a portfolio and total collection costs for that portfolio of $20 million in March through July, the Bureau estimated $15 million in pre-charge-off collection costs in March through July and calculated an average monthly collection cost of $3 million for purposes of this analysis—resulting in a ratio of late fee income of $15 million to collection cost of $3 million for this portfolio for the month of January. The Bureau found that its preliminary findings based on the weighted average of this ratio across issuers and market segments as discussed in the analysis below are robust to shifting, expanding, or shortening the time period of delay in collection costs as they relate to late fee income.

income has exceeded the relevant estimated pre-charge-off costs more than fivefold, which resembles the period before the pandemic.

Figure 1: Ratio of late fee income to future collection costs



Based on this analysis, the Bureau expects that the average issuer would recover pre-charge-off collection costs even if late fees were reduced to one-fifth of their current level. All but one issuer among those in the Y–14 data (representing the majority of balances in the credit card market) disclosed late fees ''up to'' $40 or $41 (the current maximum safe harbor amount) in their most recent card agreements submitted to the Bureau. Given the finding that, in the most recent data, late fee income is greater than five times estimated pre-charge-off costs, the Bureau expects that an $8 late fee would still recover the average issuer's pre-charge-off collection costs, as that fee represents one-fifth of the maximum late fee amount, which is necessarily greater than average fee income per late payment.

The Bureau also notes that average late fees are lower than the disclosed maximum late fees. As discussed in part II.D, in 2019, the average late fee charged by issuers in the Y–14+ data was $31.[102] Reasoning that the average late fees are lower than the current maximum safe harbor of $41 and yet still generate late fee income that is again more than five times the ensuing (estimated) pre-charge-off collection costs since August 2021, the Bureau preliminarily concludes that $8 is likely to recover the average issuer's pre-charge-off collection costs. Because the proposed safe harbor, if adopted, could be used by card issuers generally, and is not tailored to any particular type of issuers or consumers, the Bureau preliminarily finds that is appropriate to consider average issuers' pre-charge-off collection costs in determining the late fee safe harbor amount. The Bureau also preliminarily finds that establishing a generally applicable safe harbor will facilitate compliance by issuers and increase consistency and predictability for consumers.

The Bureau acknowledges that not all issuers in the Y–14 data face the average pre-charge-off collection costs. By using estimates of pre-charge-off collection costs per paid incident using the Y–14 data from September 2021 to August 2022, the Bureau estimates that fewer than four of the 12 card issuers in the Y–14 data have estimated pre-charge-off collection costs that are significantly higher than one-fifth of their late fee income. For these issuers, the proposed $8 safe harbor amount may not have been enough to fully recover estimated pre-charge-off collection costs, such that the benefits of using the cost analysis provisions may outweigh the administrative simplicity of using the safe harbor. While the most recent data suggest that the proposed safe harbor amount would cover pre-charge-off collection costs for most issuers, the Bureau recognizes that some issuers may choose to determine the late fee amount using the cost analysis provisions in § 1026.52(b)(1)(i), rather than using the proposed $8 safe harbor amount, if $8 is insufficient to recover their pre-charge-off collection costs.[103]

The Bureau recognizes that the analysis above is based on data from the largest issuers, and may not be representative of smaller issuers, who do not report to the Y–14 collection. As discussed above, the Bureau did not receive specific cost data in response to its request in the ANPR for data on card issuers' pre-charge-off collection costs, including data on pre-charge-off collection costs incurred by smaller issuers. Although the Bureau does not have data equivalent to the Y–14 data for smaller issuers' pre-charge-off collection costs, it has no reason to expect that smaller issuers exhibit substantially higher pre-charge-off collection costs than larger issuers. On the other hand, the Bureau expects that the proposed $8 amount would have a proportionately smaller impact on smaller issuers' late fee income, due to smaller issuers' having lower late fee amounts. In 2020, the average late fee for issuers in the Y–14+ data was $31.[104] The Bureau collects card agreements from many more smaller issuers than issuers for which the

[102] Late Fee Report, at 6. To gain further insights into how the average late fee compares to the disclosed maximum late fee in the agreements, the Bureau analyzed a 40 percent random subsample of tradelines of Y–14 data from 2019 to observe the incidence of late fees and the fee amounts assessed. The Bureau observed that the average late fees have been lower than the amounts in the card agreements for several reasons, including (1) some late fees did not occur within six months of an earlier late fee and thus are set at the lower safe harbor amount; and (2) some late fees reflect the current limitation in § 1026.52(b)(2)(i)(A) and related commentary that prohibits late fees from exceeding the minimum payment amount that is due. The Bureau also observed that some late fees are imposed but later reversed and that some late fees are charged to accounts that never make another payment.

[103] The Bureau estimates from the same data that a $5 safe harbor amount would drive half of the market represented in the Y–14 data to use the cost analysis provisions in § 1026.52(b)(1)(i) to determine the late fee amount and that a $4 safe harbor amount would do so for eight issuers holding around three-quarters of the represented issuers' outstanding balances.

[104] 2021 Report, at 55.

Bureau has financial data. Based on a review of those agreements from over 500 credit card issuers, each outside the top 20 by outstanding credit card loans and having more than 10,000 credit card accounts, the Bureau established that smaller issuers charged smaller late fees in 2020 than larger issuers, with a modal maximum disclosed late fee for smaller issuers of $25.[105] The Bureau solicits comment on this analysis and the potential impact on smaller issuers of the proposed $8 safe harbor amount, including whether smaller issuers can provide data or evidence related to the cost of collecting late payments. The Bureau also solicits comment on whether the pre-charge-off collection costs for smaller issuers differ from such costs for larger issuers, and if so, how the costs differ.

The Bureau notes that the analysis based on the Y–14 data discussed above does not take into account any potential changes in consumer behavior in response to the proposed change in the late fee safe harbor amount. In particular, the discussion does not take into account the possibility that reduced late fees will lead to more late payments. However, as discussed below, the Bureau's analysis of Y–14 data and other information suggests that the proposed $8 safe harbor amount for the first and subsequent late payments would still have a deterrent effect on late payments. The Bureau also expects that any increase in the frequency of late payments, as a result of the reduced late fee safe harbor amount, would increase both fee income and collection costs. Even if more consumers pay late because of the decreased amount, the increased number of late payments are unlikely to be more costly, on average, to administer and collect than the current number of late payments. Therefore, the Bureau expects that collection costs to card issuers would not increase by more than fee income. The Bureau seeks comment specifically as to this analysis, including data or evidence as to whether reduced fees would affect the frequency of late payments or collection costs.

The Bureau does not expect the proposal to cap late fees at 25 percent of the required minimum periodic payment due, discussed in the section-by-section analysis of § 1026.52(b)(2)(i), to materially change the late fee income issuers can collect overall when the issuer is using the proposed $8 safe harbor amount. The cap would require issuers to impose late fees lower than the proposed $8 safe harbor amount only when the minimum periodic payment due is $32 or less. Nonetheless, as discussed in more detail in the section-by-section analysis of § 1026.52(b)(2)(i), the instances where 25 percent of the minimum payment may be less than the proposed $8 safe harbor do not appear to be frequent. The Y–14 data from October 2021 to September 2022 shows that for those months in which an account was late, only 7.7 percent of those accounts had a minimum payment of less than $32.[106]

The Bureau notes that the Y–14 data discussed above on which the Bureau relied in considering card issuers' pre-charge-off collection costs are far richer and more extensive than the data on which the Board relied when it established the penalty fee safe harbor amounts in its 2010 Final Rule. This is due in large part to the Bureau's access to nearly a decade's worth of Y–14 data—a data source that did not exist when the Board was developing its rule. In contrast, as discussed above, the data and other information on which the Board relied was limited, as systematic reporting of card issuers' collection costs was not available and relatively few commenters on the Board's proposal provided any data on collection costs in response to the Board's request for such data, with some providing data that the Board found unreliable.

Similarly, the Bureau did not receive specific cost data in response to its request in the ANPR for data on card issuers' pre-charge-off collection costs, including costs associated with notifying (other than through periodic statements) cardholders of delinquencies and resolving delinquencies (including the establishment of workout and temporary hardship arrangements) prior to charge-off, including payments to third-party debt collectors. In general, card issuers and their trade groups provided information on card issuers' late fee pricing structures, individually or industry-wide, and further provided high-level explanations for those pricing structures, including recovering collection costs, risk management, and the effects of the safe harbor provisions themselves. In a joint comment, for example, several trade groups asserted that the similarity of late fees across issuers is a predictable response to the benefits of legal certainty granted under the law. These trade groups further asserted that the safe harbor allows issuers to recover some (though not all) of the costs associated with late payments and encourages on-time payments, while also providing issuers with compliance certainty. These trade groups, however, did not provide data on issuers' pre-charge-off collection costs. Neither did any other commenters.

One credit union trade group provided estimates of the hourly labor costs of collecting late payments, based on the average salary of a collections agent that the commenter obtained from a publicly available source. This credit union trade group commenter did not provide estimates of what portions of those hourly labor costs are pre-charge-off and post-charge-off, nor did it provide the number of hours of labor that would be needed per late payment. As a result, it was not possible to determine the late fee cost per account based on the data provided.

The Bureau also notes the current safe harbor amounts of $30 and $41 are significantly higher than the pre-charge-off collection costs as shown in the Bureau's analysis. Moreover, as discussed in part II.E, most large issuers have taken advantage of the increased safe harbors as adjusted for inflation by increasing their fee amounts.[107] Eighteen of the top 20 issuers by outstanding balances contracted for a maximum late fee at or within 10 percent of the higher safe harbor amount in 2020.[108] Although card issuers generally do not impose late fees at the highest contracted-for amount, issuers have steadily been charging consumers more in credit card late fees each year,[109] with the average late fee imposed increasing in amount from $23 at the end of 2010 to $31 in 2019.[110]

The Bureau is thus concerned that credit card late fee amounts imposed pursuant to the current safe harbor amounts—which, as adjusted for inflation, were established in 2010 based on limited data available at the time—far exceed card issuers' actual pre-charge-off collection costs resulting from late payment violations and thus

[105] Late Fee Report, at 14.

[106] For more information on the distribution of minimum payments for late accounts in the Y–14 data, *see* Figure 3 and related discussion in the section-by-section analysis of § 1026.52(b)(2)(i). However, issuers could adjust how they determine minimum payments such that the 25 percent limitation on late fees would only affect those accounts with balances of less than $32, whose minimum payment will always be less than $32 as the minimum payment can never exceed the statement balance. Based on the Y–14 data between October 2021 and September 2022, for those months in which an account was late, only 2.1 percent of accounts had balances of less than $32.

[107] Late Fee Report, at 14.

[108] *Id.*

[109] As noted above, the one exception to this trend is a brief period during the pandemic when there was a drop in card issuers' late fee income corresponding with government stimulus payments.

[110] Late Fee Report, at 6. *See also* 2013 Report, at 23.

are not reasonable and proportional. In considering the costs of such violations to issuers, the Bureau has analyzed available data sources and other information, including Y–14 data extending back several years, as discussed above. The Bureau recognizes that the costs of collecting late payments will vary from issuer to issuer and that a late fee safe harbor amount of $8 may not cover all of those costs for all issuers. The Bureau notes, however, that TILA section 149(e) authorizes the Bureau to issue rules to provide, for any penalty fee or charge, a safe harbor amount that is presumed to be reasonable and proportional to the omission or violation to which the fee or charge relates.

The Bureau also considered cost as one of the factors in making that determination. The Act, however, does not require the Bureau to establish a late fee safe harbor amount that covers the costs for all issuers or the entire costs of the omission or violation in all instances. Moreover, the Bureau is concerned that setting a higher safe harbor amount for late fees in order to cover the pre-charge-off collection costs of all card issuers could result in an amount that exceeds the costs for most card issuers. As discussed in part II.E, the Bureau is concerned that card issuers may have a disincentive to charge a lower fee amount than the safe harbor amount, even if their average collection costs are less than the safe harbor amount, given the industry's reliance on late fees as a source of revenue and that many consumers may not shop for credit cards based on the amount of the late fee.

In addition, because the Bureau anticipates that most card issuers would use the proposed $8 late fee safe harbor threshold amount, the proposed safe harbor provisions in § 1026.52(b)(1)(ii) would continue to save costs for most card issuers, by continuing to save them the administrative burden and complexity of using the cost analysis provisions in § 1026.52(b)(1)(i) to determine the late fee amount. As discussed above, in considering the appropriate safe harbor amount for late fees, the Bureau is guided by the factors in TILA section 149(c), which provides that the Bureau can consider such other factors that the Bureau deems necessary or appropriate. The Bureau preliminarily finds that it is both necessary and appropriate, when considering the portion of card issuers' pre-charge-off costs that a late fee safe harbor amount would cover, to take into account the cost savings from compliance certainty and administrative simplicity accorded by a safe harbor. The Bureau also preliminarily finds that a late fee safe harbor amount of $8 for the first and subsequent late payments strikes the appropriate balance of these considerations. The Bureau seeks comment on all aspects of the analysis above, including data or other information to support why the $8 amount is or is not sufficient to cover card issuers' pre-charge-off costs. The Bureau also seeks specific comment on whether the data on pre-charge-off collection costs discussed above accurately reflect the costs that card issuers incur as the result of a late payment violation before charge-off, including data or other information indicating whether the Bureau's analysis over- or underestimates such costs.

The Bureau further notes that if the proposed $8 safe harbor amount is not sufficient to cover a particular card issuer's pre-charge-off costs in collecting late payments, the card issuer can charge a higher amount, if consistent with the cost analysis provisions in § 1026.52(b)(1)(i) and the requirements in § 1026.52(b)(2). Card issuers also may undertake efforts to reduce collection costs or use interest rates or other charges to recover some of the costs of collecting late payments. Building those costs into upfront rates would provide consumers greater transparency regarding the cost of using their credit card accounts.

For the foregoing reasons, the Bureau preliminarily concludes that a late fee of $8 for the first and subsequent violations is appropriate to cover pre-charge-off costs for card issuers on average while providing issuers compliance certainty and administrative simplicity.

Deterrence. As noted above, in the 2010 Final Rule, the Board did not expressly discuss how it took deterrence into account in setting the $25 penalty fee amount; instead, the Board limited its discussion of that factor to the role it played in the Board's decision to set a higher safe harbor amount for any additional violation of the same type that occurs during the same billing cycle or in one of the next six billing cycles.

In developing this proposal, the Bureau analyzed available data to consider the extent to which lower late fees for both the first and subsequent late payments could potentially lessen deterrence. The Bureau recognizes that late fees are a cost to consumers of paying late, and a lower late fee amount for the first or subsequent late payments might cause more consumers to pay late. The Bureau also recognizes that it does not have direct evidence on what consumers would do in response to a fee reduction similar to those contained in the proposal, and market participants did not provide data on deterrence in response to the Bureau's ANPR. The Bureau notes, however, that the Y–14 data and other information that has become available since the Board issued its 2010 Final Rule support the proposed reduction.

As discussed in more detail below, the Bureau preliminarily finds that this available evidence suggests that the proposed $8 safe harbor amount would still have a deterrent effect on late payments. Even if the proposed $8 safe harbor would increase the frequency of late payments by some percentage, the Bureau has preliminarily determined that some cardholders may benefit from the proposed $8 safe harbor threshold amount in terms of a greater ability to repay revolving debt. The Bureau also notes that card issuers have methods other than higher late fees (1) to deter late payment behavior; and (2) to facilitate timely payments, for example, automatic payment and notification within a certain number of days (*e.g.,* five days) prior to the due date that the payment is coming due.

In making its preliminary determination that lowering late fee amounts to the proposed $8 safe harbor amount would still have a deterrent effect on late payments, as discussed in more detail below, the Bureau considered (1) a comparison of the proposed $8 late payment safe harbor amount to minimum payment amounts on accounts in the Y–14 data; and (2) available empirical evidence on the effects of credit card late fees on the prevalence of late payments.

The Bureau notes that whether a consumer is late in making a required payment depends in part on the consequences of paying late, including both penalty fees for late payments and other consequences such as increased interest charges and potential credit reporting consequences (as discussed in part II.G and in more detail below). From the point of view of a rational consumer faced with the decision of whether to make a minimum balance payment on time or to put off the payment until later, the decision represents a tradeoff weighing the value to the consumer of retaining the money for longer against the total costs of paying late. For the median minimum payment amount of approximately $100 for accounts that paid late in the Y–14 data from October 2021 through September 2022, the costs of paying late are quite steep both under current late payment fee amounts and under the

proposed $8 safe harbor amount.[111] For example, a consumer who effectively borrows a minimum payment amount of $100 until the next due date (that is, who makes a payment one month late) and pays a $8 late fee would be incurring an effective APR of 96 percent even ignoring other consequences. In addition, a consumer who effectively borrows a minimum payment amount of $40 for 10 days (past due) and pays a $8 late fee would be incurring an effective APR of 730 percent. As the median minimum due was $39 for all cardholders between October 2021 and September 2022 in the Y–14 data,[112] and around half of late payers made a payment in less than 10 days past the due date, the effective APR could be higher than 730 percent for some consumers. Thus, the Bureau has preliminarily determined that the proposed $8 late fee safe harbor amount is still a powerful deterrent to those consumers who pay attention to financial penalties.

The Bureau also has considered available empirical evidence on the effects of credit card late fees on the prevalence of late payments. In particular, the Bureau considered (1) a 2022 paper analyzing the effect of the reduction of late fee amounts that became effective as a result of the CARD Act in 2010; (2) analysis by the Bureau using Y–14 data of how the prevalence of late payments is affected by increases in late fee amounts during the six months following a violation; and (3) other empirical investigations into the correlates of late fee amounts and late fee incidence as discussed below.

In analyzing the available data, the Bureau notes a 2022 paper by Grodzicki *et al.,* containing an empirical analysis that concluded that a decrease in the late fee amount stemming from the Board's 2010 Final Rule raised the likelihood of a cardholder paying late.[113] While the Bureau recognizes that this paper suggests that consumers may engage in more late payments when they are less costly to consumers, for the reasons discussed below, the Bureau does not consider this robust evidence that the proposed $8 safe harbor late fee amount would not have a deterrent effect. The Bureau also notes the paper focused on the late fee variations resulting from the limitations on penalty fee amounts in the Board's 2010 Final Rule and thus could be confounded by other market changes coinciding with the rule going into effect. In particular, the late fee provisions in the Board's 2010 Final Rule were implemented in August 2010, as the U.S. economy was still dealing with the aftermath of the Great Recession,[114] and thus it was difficult to attribute consumer finance statistical trends to particular events. Moreover, the Board's 2010 Final Rule affected all consumers and all issuers, so there was no suitable control group of consumers that were charged the same amount of late fees before and after the implementation of the Board's 2010 Final Rule. Thus, the 2022 paper compared consumer behavior in the year before and the year after August 2010, and the causal attribution of an increase in late payments to a reduction of the late fee amount is hard to prove due to the general economic uncertainty around that time.

In developing this proposal, the Bureau analyzed Y–14 data from 2019, where the variation in late fees does not correspond to other big changes or differences that might plausibly affect late payment. As this proposal discusses, the current rule sets a higher late fee safe harbor amount for instances where another late payment occurred over the course of the preceding six billing cycles. The Bureau conducted statistical analysis to investigate whether the lower late fee amount in month seven leads to a distinct rise in late payments (Y–14 seventh-month analysis). Specifically, the Bureau estimated whether there are discontinuous jumps in late payments in the seventh month after the last late payment.[115] This analysis focused on these potential jumps to isolate the potential impact that the lower late fee that would apply in month seven might have on late payment rates, given that month seven is generally comparable to month six other than the lower late fee amount. In a random subsample from account-level data available in 2019 from the Y–14 data, this statistical analysis did not support that the lower late fees in month seven have an effect on the late payment rate, at conventional confidence levels. In addition, as a separate observation, the Bureau observed that for consumers that incurred a higher fee for a late payment during the six months after the initial late payment, the payment of that higher late fee did not lead to a discernibly lower chance of late payment for a third time in the future than for those consumers whose second late fee was lower because they paid late seven or more months after their first late payment.

The Bureau acknowledges that the variation in late payments in the Y–14 seventh-month analysis discussed above is not the same as the changes that would result from the proposed rule. Nonetheless, this evidence suggests the prevalence of late payments is not highly sensitive to the level of late fees at the current order of magnitude.

An advantage of the Y–14 seventh-month analysis is that it avoids confounding factors that often are found in other studies of late fees, including the 2022 paper by Grodzicki *et al.,* discussed above. Studies that compare behaviors of consumers facing higher or lower fees (if late) with consumers in a comparison group are often fraught with multiple confounding factors that may also vary across time periods, issuers, products, or consumer behavior in each group.

The preliminary finding from the Y–14 seventh-month analysis described above is still contingent upon the fact that some consumers understand that their issuers charge lower late fees starting the seventh month after an initial violation. The Bureau recognizes that the higher late fees for subsequent late payments within the next six billing cycles might be more of a deterrent if consumers understand them better in 2022 than they did in 2019, but the Bureau has no evidence to indicate that is the case. However, this analysis is not dependent on all issuers charging the lower late fee safe harbor amount more than six months after a late payment nor the higher late fee safe harbor amount within the six billing cycles. As long as some issuers made use of the higher safe harbor, and the analysis described above shows they did, the Bureau should still have been able to detect an increase in the deterrent effect of their fee structure.

The Bureau also notes that because the Y–14 seventh-month analysis discussed above focused on a potential discrete jump in late payments more than six months after a preceding late payment, it also allowed for late payments to trend down as more time passed after a late payment. As described above, the Bureau did not see

[111] For more information about the distribution of minimum payment amounts for late accounts in the Y–14 data, *see* Figure 3 and related discussion in the section-by-section analysis of § 1026.52(b)(2)(i).

[112] For purposes of the calculations of the distribution of the minimum payment amounts in the Y–14 data, the calculations do not include account-months where a late fee was charged but the minimum due was reported to be $0.

[113] Daniel Grodzicki, *et al., Consumer Demand for Credit Card Services,* Journal of Financial Services Research (Apr. 25, 2022), *https://link.springer.com/article/10.1007/s10693-022-00381-4.*

[114] The Great Recession began in the fourth quarter of 2007 and ended in the second quarter of 2009. *See generally* Nat'l Bureau of Econ. Res., *Business Cycle Dating Committee,* (Sept. 20, 2010), *http://www.nber.org/cycles/sept2010.html.*

[115] The Bureau observed in the Y–14 data that, consistent with the safe harbor provisions of the current rule, consumers who paid late again within the six months after a late payment paid higher late fees during those six months than they paid after the initial late fee.

the lower late fee amount that could be charged in month seven change this downward trend.

The Bureau also has preliminarily determined that other publicly available studies on late fees suggest that the proposed $8 safe harbor amount would still have a deterrent effect on late payments. Empirical investigations into the correlates of late fee amounts [116] and late fee incidence [117] noted that late fee payment can often be avoided by small and relatively costless changes in behavior. This suggests that the lower proposed $8 late fee safe harbor amount would still be higher than the costs of making a timely payment. The Bureau has preliminarily determined that the triggers that make cardholders avoid the current prevailing late fees also would make cardholders avoid a $8 late fee.[118]

As discussed above, in support of applying higher late fee safe harbor amounts for the following six billing cycles after a late payment, the Board in adopting its 2010 Final Rule pointed to a 2008 study by Agarwal *et al.,* of four million credit card statements, which found that a consumer who incurs a late payment fee is 40 percent less likely to incur a late payment fee during the next month, although this effect depreciates approximately 10 percent each month.[119]

The Bureau has consulted the last available revision of the cited working paper by Agarwal *et al.,* from 2013, and has preliminarily determined that the study is of limited relevance as to whether the late fee amount impacts late payment incidence, for two reasons. First, the study considers the months following any late fee and compares them to months with no recent late payment. That comparison is not the same as comparing to months in which a payment was late, but a lower late fee (or even a $0 late fee) was charged. Second, even if the study had compared to months where a payment was missed but no late fee was charged, that comparison still would not be relevant to the proposal in that the proposal would reduce the safe harbor amount to $8, not completely eliminate the late fee.

The Bureau notes that the Y–14 seventh-month analysis discussed above shows that in the surrounding months reoffending rates trend down with each month after the last late payment. The Bureau's Y–14 seventh-month analysis, however, does not show a jump in late payment rates in month seven after the last late fee, which suggests that the higher late fee amount during the prior six months is not contributing to this downward trend.

The Bureau also notes that the 2013 study by Agarwal *et al.,* discussed above did not separate the effects of the late fee itself from other possible consequences of a late payment, such as additional finance charges, a lost grace period, penalty rates, and reporting of the late payment to a credit bureau which could affect the consumer's credit score. Given these other consequences of a late payment as discussed in more detail below and in part II.G, it is not clear that the proposal's lower late fee safe harbor amount would meaningfully affect the decreased chance that consumers will pay late again after an initial late payment in ways similar to those established in this 2013 study.

As discussed above, in adopting the safe harbor amounts in its 2010 Final Rule, the Board also considered the limitations that the United Kingdom's OFT placed on credit card default charges in 2006. The Bureau notes that it is not aware of evidence suggesting that the £12 ($21 on the day of the rule, $13.40 in November 2022) limit the OFT imposed on default charges (including late fees) in 2006 meaningfully increased late payments in the United Kingdom (U.K.). The OFT ruled on April 5, 2006, that it would presume default charges higher than £12 unfair and challenge the company unless exceptional business factors drove the decision for the company to charge higher fees. As fees were routinely as high as £25 ($43.75 on the day of the rule) until that spring, this episode is the closest to what the Bureau would foresee as the outcome to its proposal: a salient reduction in late fees impacting the entire marketplace at once, letting both issuers and cardholders learn and adapt to the lower later fees. The Bureau solicits comment from the public for any relevant information on the causal effects of this U.K. fee reform on missed or late payments and longer delinquencies, especially ones leading to more costly collections than before the reform.

For the reasons discussed above, the Bureau preliminarily finds that the available evidence indicates that the proposed $8 safe harbor amount for the first and subsequent late payments would still have a deterrent effect on late payments, although that effect may be lessened by the proposed change to some extent, and other factors may be more relevant (or may become more relevant) towards creating deterrence. Even if the proposed $8 safe harbor increases the frequency of late payments by some percentage, for the reasons discussed below, the Bureau has preliminarily determined that some cardholders may benefit from the proposed $8 safe harbor threshold amount. As discussed above, in considering the appropriate safe harbor amount for late fees, the Bureau is guided by the factors in TILA section 149(c), which provides that the Bureau can consider such other factors that the Bureau deems necessary or appropriate. The Bureau preliminarily finds that it is both necessary and appropriate when considering whether a late fee is reasonable and proportional to take into account the possible impact of lower

[116] Nadia Massoud, *et al., The Cost of Being Late? The Case of Credit Card Penalty Fees,* 7 Journal of Financial Stability, at 49–59 (2011).

[117] Sumit Agarwal, *et al., The Age of Reason: Financial Decisions Over the Life Cycle and Implications for Regulation,* 2 Brookings Papers on Economic Activity, at 51–117 (2009).

[118] The Bureau notes that several industry commenters on the ANPR discussed a survey conducted by Argus Advisory, a TransUnion Company, in 2010. The commenters indicated that this survey demonstrates that there is a threshold which late fees must reach in order to encourage cardholders to pay on time. The commenters indicated that this survey shows that to deter a majority of cardholders from making a late payment, a fee of $40 to $46 would be required. The Bureau acknowledges that an order of magnitude higher fee amounts is likely to deter more consumers from paying late but finds that questions to consumers on hypothetical late payment amounts are less informative about the effects of late payment fees in practice. The Board also discussed this survey when it adopted the 2010 Final Rule and did not believe that it would be appropriate to give significant weight to the results of the survey. The Board noted: ''Although surveys of this type are sometimes used to gauge the prices consumers may be willing to pay for retail products, the Board understands that their accuracy is limited even in that context. Furthermore, the Board is not aware of this type of survey being used to measure the deterrent effect of fees. Accordingly, the Board does not believe that it would be appropriate to give significant weight to the results of this survey.'' 75 FR 37526, 37541 n. 43 (June 29, 2010).

Several industry commenters also argued that late fees are often used in other industries, and similar to the card market, higher fees are more effective at encouraging compliance with due dates. The commenters pointed to studies in the video rental market that showed that payment of a late fee decreases the likelihood of a late return the next month by nearly 9 percent, and the deterrent effect of late fees increases with the size of the penalty. Haselhuhn *et al., The Impact of Personal Experience on Behavior: Evidence from Video-Rental Fines,* Management Science, vol. 58, No. 1 (2012). These commenters also pointed to another study on the video rental market that found that (1) paying a late fee reduces the likelihood that the next return will be late by 19 percent; (2) these effects decrease the farther out from the initial payment the customer gets. Fishman and Pope, *Punishment-Induced Deterrence: Evidence from the Video-Rental Market,* Univ. of Cal., Berkeley, Dept. of Econ. (2006). The Bureau recognizes that the results of these studies are in line with the broader literature (*see also* supra note 93) indicating that consumers learn by trial and error of personal experience, but the Bureau finds that these studies are less useful to extrapolate how many more cardholders would make a late payment on U.S. credit cards if the late fee safe harbor amount were lowered.

[119] *See* Agarwal *et al.,* supra note 93.

late fees on cardholders' repayment behavior and finances.

For the more constrained cardholders, like subprime borrowers, who pay a disproportionate proportion of late fees, the current, higher late fee may be impacting cardholder repayment conduct—*i.e.,* the higher late fee amount could have gone toward a payment on the account. As discussed in part VII, the Bureau estimates that reducing the safe harbor for late fees to $8 would likely reduce late fee revenue by billions of dollars. While issuers may respond to this reduction in revenue from late fees by adjusting interest rates or other card terms to offset the lost income, the Bureau expects less than full offset, with consumers gaining in total from reduced late fees. This expected savings would benefit consumers. The money saved by cardholders on late fees may go toward repayment. The 2022 paper by Grodzicki *et al.,*[120] described above, with all the caveats noted there, found such a pattern for subprime cardholders: A decrease in late fees after the implementation of the CARD Act increased borrowing for prime borrowers but triggered repayment for subprime cardholders.[121] If this prediction held true for the current proposed reform, it would imply that lowering late fees may provide some benefits to subprime consumers in terms of a greater ability to repay revolving debt. This effect might also lower issuers' losses from delinquencies, as it could subsequently reduce the likelihood and the severity of default in the population most prone to default.[122]

As discussed above, in considering the appropriate safe harbor amount for late fees, the Bureau is guided by the factors in TILA section 149(c), which provides that the Bureau can consider such other factors that the Bureau deems necessary or appropriate. The Bureau preliminarily finds that the combined benefits of these effects are necessary and appropriate factors to take into account, along with deterrence, in determining whether a late fee safe harbor amount is reasonable and proportional. The Bureau also preliminarily finds that a late fee safe harbor amount of $8 for the first and subsequent late payments strikes the appropriate balance of these considerations.

In addition, the Bureau notes that card issuers have methods to deter late payment behavior other than charging higher late fees. As discussed in part II.G, for cardholders who typically pay their balance in full every month (so-called transactors), a late fee is in addition to new interest incurred for carrying or revolving a balance. For these customers who do not roll over a balance in the month before or after a late fee is assessed, the loss of a grace period and coinciding interest charges may pose a similar or even greater deterrent effect than the late fee itself.

Card issuers also have other tools to deter late payment behavior, and therefore, minimize the potential frequency and cost to card issuers of late payments, such as reporting the late payment to a credit bureau which could affect the consumer's credit score, decreasing the consumer's credit line, limiting the cardholder's earning or redemption of rewards, and imposing penalty rates. After 30 or so days, card issuers typically report delinquencies to credit bureaus, which can lower the consumers' credit scores. Since the Board's 2010 Final Rule went into effect, many credit card issuers, financial institutions, and third parties have begun providing free credit scores to consumers.[123] Access to real-time changes in consumers' credit scores have likely increased their awareness of any decline related to late payments. Thus, the deterrent effect of any negative credit score impact is likely greater than in 2011 and further encourages payment within one billing cycle of the due date without the imposition of additional financial penalties.

Also, an issuer may take steps to reduce a cardholder's credit line and limit the cardholder's earning or redemption of rewards. If a consumer does not make the required payment by the due date, § 1026.55(b)(3) permits a card issuer to take actions to reprice new transactions on the account according to a penalty rate in certain circumstances. After 60 days, § 1026.55(b)(4) permits card issuers to take steps to reprice the entire outstanding balance on the account according to a penalty rate in certain circumstances.

The Bureau also notes that card issuers have methods to facilitate timely payments, including, for example, automatic payment and notification within a certain number of days (*e.g.,* five days) prior to the due date that the payment is coming due. Both the availability and adoption of these methods have increased since the Board issued its 2010 Final Rule. In 2013, issuers tracking the number of consumers making payments online reported that an average of 38 percent of consumers made at least one non-automatic payment online or through automatic payment; [124] in 2020, 61 percent of active accounts made at least one non-automatic online payment online, and 18 percent of accounts made at least one automatic payment.[125] Even in the past few years, digital enrollment has grown with 80 percent of active accounts enrolled in an issuer's online portal in 2020 (a 7 percentage point increase from 2017), 64 percent enrolled in a mobile app (a 13 percentage point increase from 2017), and 56 percent receiving only e-statements (a 12 percentage point increase from 2017).[126]

Indeed, in response to the ANPR, several card issuers and their trade groups noted that card issuers currently use many of these methods. One large trade group, for example, noted that issuers have developed functions such as automatic payment to help consumers avoid forgetting to make monthly payments. This commenter further asserted that automatic payment generally allows consumers to choose an amount to pay each month and a payment due date based on what best fits their financial circumstances, increasing the likelihood that consumers will be able to pay on time. A joint comment submitted by several industry trade groups stated that issuers promote on-time payments through a variety of means in addition to late fees, including multiple payment reminders sent via mail, email, or text notification depending on consumer preference. These commenters further stated that one issuer reported that as of five months after rollout of its new alert system, the issuer's gross monthly late

[120] Supra note 113.

[121] Although the paper found that lower late fees may cause subprime cardholders to pay late more often, it also found that lower late fees may cause subprime cardholders to make a larger payment when they ultimately make the payment. This paper explained that this latter effect on subprime cardholders might result from the lower late fee amount lessening the need for subprime cardholders to focus on avoiding late fees and instead allowing some subprime cardholders to start to pay more attention to the high cost of their revolving debt.

[122] Even if lower late fees would decrease losses from delinquencies, issuers may still prefer higher late fees to maximize profits. As current late fee levels generally produce profits to issuers on the average late payment, the Bureau does not take the prevalence of high fees as strong evidence that lower fees would raise issuers' losses from delinquency. Even if lowering late fee amounts reduced delinquency, doing so might not be in issuers' interest: a $1 reduction in the late fee amount might decrease delinquency losses by less than $1 per incident, and thus lower profits.

[123] Bureau of Consumer Fin. Prot., *The Consumer Credit Card Market,* at 174 to 176 (Dec. 2017) (2017 Report), *https://files.consumerfinance.gov/f/documents/cfpb_consumer-credit-card-market-report_2017.pdf.*

[124] 2013 Report, at 68.

[125] These categories are not mutually exclusive. 2021 Report, at 39.

[126] 2021 Report, at 171.

fees were 20 percent lower and the late fee incidence rate per balance had fallen by nearly 25 percent. Similarly, a large credit union trade group noted that some credit unions already have systems in place or are currently contracting with third-party vendors to offer their members convenient reminders for upcoming payment due dates via text message and email.

The Bureau expects these other consequences to decrease the likelihood of late payment not only in cases where issuers consider the deterrence effects of lower late fees to be insufficient. As discussed in part VII, issuers may offset lost revenue from lower late fees by increasing interest rates, which would indirectly make late payments more costly than without this response. Also, issuers may have less ability to charge consumers higher late fees to maximize profits and thus may be more inclined to take other, more efficient steps to deter late payments, including providing timely reminders of an upcoming due date, well-chosen due dates aligned with cardholders' cash flow, and encouraging automatic payments.

Consumer conduct. As discussed above, the Board took consumer conduct into account in adopting the higher $35 fee for repeat late fees within six billing cycles. The Board explained its belief that ''multiple violations during a relatively short period can be associated with increased costs and credit risk and reflect a more serious form of consumer conduct than a single violation.'' [127]

The Bureau has preliminarily determined that the proposed $8 late fee safe harbor amount for the first and subsequent late payments better reflects a consideration of consumer conduct. For example, it is not clear from analysis of the Y–14 data and other relevant information that multiple violations during a relatively short period are associated with increased credit risk and reflect a more serious consumer violation. Based on the account-level Y–14 data, the Bureau estimated that only 13.6 percent of accounts incurred a late fee and then no additional payments were made on that account. In addition, for accounts that incurred a late fee, the Bureau estimates that a third of accounts paid the amount due within five days of the payment due date, half the accounts paid the amount due within 15 days of the payment due date, and three out of five accounts paid the amount due within 30 days of the payment due date.[128]

In addition, the Bureau understands that the Metro 2 reporting format used by the industry for reporting information to credit bureaus does not consider a payment to be late if it is made within 30 days of the due date. Thus, for risk management purposes, the industry itself does not appear to consider the consumer's conduct in paying late to be a serious form of consumer conduct until the consumer is 30 or more days late. As discussed above, the Bureau estimates that a majority of accounts become current before card issuers even consider the consumer late for credit reporting purposes.

The Bureau also recognizes that some consumers may pay late chronically but otherwise make a payment within 30 days for a number of reasons, including cash flow issues, that do not necessarily indicate that they are at significant risk of defaulting on the credit. For example, consumers may make a credit card payment after the due date from the next paycheck to smooth out expenses and avoid paying overdraft fees. The Bureau notes that a study from 2021 suggests that some consumers who are paid on a bi-weekly basis may not make the required payment by the due date but will make the required payment within 30 days after the due date from their next paycheck.[129]

The Bureau also notes that card issuers have methods other than late fees to address credit risk. Specifically, card issuers may take steps to reduce a cardholder's credit line. Also, card issuers that charge an interest rate are permitted by § 1026.55(b)(3) to reprice new transactions on the account according to a penalty rate in certain circumstances. In addition, after 60 days, § 1026.55(b)(4) permits these issuers to take actions to reprice the entire outstanding balance on the account according to a penalty rate in certain circumstances.

The Bureau recognizes that card issuers do not charge interest on charge card accounts, and thus would not be able to use the interest rate charged on the account to manage credit risk. Nonetheless, current § 1026.52(b)(1)(ii)(C) permits card issuers to impose a late fee that does not exceed 3 percent of the delinquent balance on a charge card account that requires payment of outstanding balances in full at the end of each billing cycle, when a charge card issuer has not received the required payment for two or more consecutive billing cycles. As the Board noted in the 2010 Final Rule, this provision is intended to provide charge card issuers with more flexibility to charge higher late fees and thereby manage credit risk when an account becomes seriously delinquent, because charge card issuers do not apply an APR to the account balance and therefore cannot respond to serious delinquencies by increasing that rate.[130] The proposal would not amend the current safe harbor set forth in § 1026.52(b)(1)(ii)(C).

Consideration of all statutory factors—preliminary findings and determinations. In considering all statutory factors, the Bureau preliminarily finds that an $8 late fee for the first and subsequent late payments better represents a balance of issuer costs, deterrent effects, consumer conduct, as well as the benefits to issuers that result from relying on a safe harbor amount, like reduced administrative costs, and the possible beneficial effects of lower late fees on subprime cardholders' repayment behavior. Further, the Bureau preliminarily finds that this amount is supported by careful analysis of the Y–14 data. Finally, the Bureau notes that it has taken into consideration changes in the market, like automatic payment, that facilitate billing and payment, thus making it easier for card issuers to collect timely payments. For these reasons, the Bureau preliminarily determines that a late fee amount of $8 for the first and subsequent violations is presumed to be reasonable and proportional to the late payment violation to which the fee relates.

The Bureau seeks comment on all aspects of its proposal to lower the late fee safe harbor dollar amounts in § 1026.52(b)(1)(ii) to a fee amount of $8 for the first and subsequent violations and provide that a higher safe harbor dollar amount for penalty fees occurring within the same billing cycle or the next six billing cycles does not apply to late fees. In particular, the Bureau seeks comment on whether to set a different amount and, if so, what amount and why, including any relevant data or other information. The Bureau also seeks comment on whether to retain the higher safe harbor amount and, if so,

[127] 75 FR 37526, 37527 (June 29, 2010).

[128] For more information related to the estimates using the Y–14 data of how many days after the due date accounts that incurred a late fee paid the amount due, *see* Figure 4 and related discussion in part VII.

[129] Paolina C. Medina, *Side Effects of Nudging: Evidence from a Randomized Intervention in the Credit Card Market,* 34 The Review of Financial Studies, (May 2021), at 2580–2607, *https://doi.org/10.1093/rfs/hhaa108.*

[130] *See generally,* 75 FR 37526, 37544 (June 29, 2010).

what amount and why, including any data and other information related to the deterrent effects of the higher amount or its effects on consumer conduct. Further, the Bureau seeks comment on whether and why to set a staggered late fee amount with a cap on the maximum dollar amount, such that card issuers could impose a fee of a small dollar amount every certain number of days until the cap is hit.[131] The Bureau seeks comment on what small dollar amount and maximum dollar amount cap may be appropriate and why, including any relevant data or other information. The Bureau also seeks comment on whether the safe harbor threshold for late fees should be structured as a percentage of the minimum payment amount, and if so, what percentage should be used. In addition, the Bureau seeks comment on what other revisions may be appropriate to ensure that credit card late fees imposed pursuant to the safe harbor provisions are reasonable and proportional. In particular, the Bureau seeks comment on whether, as a condition of using the safe harbor for late fees, it may be appropriate to require card issuers to offer automatic payment options (such as for the minimum payment amount), or to provide notification of the payment due date within a certain number of days prior to the due date, or both.

The Bureau further seeks comment on whether and why to lower the safe harbor amounts in § 1026.52(b)(1)(ii)(A) and (B) (including whether and why to eliminate the higher safe harbor amount for subsequent violations that occur during the same billing cycle or in one of the next six billing cycles) for all other credit card penalty fees, including fees for returned payments, over-the-limit transactions, and when payment on a check that accesses a credit card account is declined. In particular, the Bureau seeks comment on what the safe harbor amounts for such fees should be, including any relevant data and information on the costs of such violations to card issuers. In the alternative, the Bureau seeks comment on whether to finalize the proposed safe harbor for late fees and eliminate the safe harbors for other penalty fees.

Proposed Amendments to § 1026.52(b)(1)(ii) Commentary

In addition to the proposed amendments to the late fee safe harbor amounts in § 1026.52(b)(1)(ii), the Bureau proposes amendments to the provision's commentary. The Bureau proposes these amendments for purposes of clarity and consistency with the proposal to lower the late fee safe harbor amount to a fee amount of $8 for the first and subsequent violations.

Existing comment 52(b)(1)(ii)–1 explains the circumstances in which a card issuer may impose a higher penalty fee amount under § 1026.52(b)(1)(ii)(B) for a violation of the same type that occurred during the same billing cycle or one of the next six billing cycles. Because § 1026.52(b)(1)(ii)(B) would no longer apply under the Bureau's proposal to limit the late fee safe harbor amounts to a fee amount of $8 for the first and subsequent violations, the Bureau proposes to amend comment 52(b)(1)(ii)–1.i to explain additionally that a card issuer cannot impose a late fee in excess of $8, as provided in proposed § 1026.52(b)(1)(ii), regardless of whether the card issuer has imposed a late fee within the six previous billing cycles. The Bureau also proposes to amend the illustrative examples in comment 52(b)(1)(ii)–1.iii.A to remove references to late fees and replace them with references to over-the-limit fees, as § 1026.52(b)(1)(ii)(B) would still apply to such fees under the Bureau's proposed amendments to § 1026.52(b)(1)(ii). In addition, the Bureau proposes to amend the illustrative examples in comments 52(b)(1)(ii)–1.iii.B and C to reflect a late fee amount of $8, consistent with the proposed amendments to § 1026.52(b)(1)(ii), and to make minor technical changes for consistency with the proposal.

The Bureau invites comment on all aspects on these proposed amendments to the commentary to § 1026.52(b)(1)(ii), including comment on what additional amendments may be needed to help ensure clarity and compliance certainty.

Alternatives Considered

The Bureau considered several alternatives in developing the proposal to lower the safe harbor amounts for late fees. These included proposing to eliminate for late fees the safe harbor provisions in § 1026.52(b)(1)(ii) altogether, in which case card issuers could only impose late fees in amounts that issuers determine to be reasonable and proportional under the cost analysis provisions in § 1026.52(b)(1)(i). In the ANPR, the Bureau solicited comment on several questions related to facilitating use of the cost analysis provisions and to eliminating the safe harbor provisions for late fees. These included requests for comment on what information card issuers would use if they were to use the cost analysis provisions in § 1026.52(b)(1)(i) to determine the amount of late fees and what additional details the Bureau may need to provide concerning how to comply with the cost analysis provisions, beyond the detail currently provided in the commentary. In addition, the Bureau requested comment on what additional processes and procedures, if any, the Bureau should adopt to ensure compliance if the Bureau were to require that card issuers use the cost analysis provisions to determine the amount of late fees.

No commenters expressly supported eliminating the safe harbor provisions, and most card issuer and trade group commenters expressly opposed it. No card issuers stated that they use the cost analysis provisions to determine the amount of late fees. Of the commenters opposing eliminating the safe harbor provisions, many expressed their belief that doing so could result in higher late fees or an increase in the cost of credit for consumers. In addition, a large trade group commenter expressed concern that eliminating the safe harbor provisions could increase issuers' compliance costs in determining the overall costs resulting from late payments (placing a disproportionately high burden on smaller issuers, community banks, and new entrants) and potentially result in complicated formulas to determine costs and appropriate late fees. A credit union expressed concern about increased compliance costs as well and further noted that those increased costs would be borne by credit union members. Another trade group commenter noted that before eliminating the safe harbor provisions, the Bureau would have to take into account all of the factors that the Bureau is required to consider under the CARD Act in issuing rules to establish standards for assessing whether the amount of any penalty fee is reasonable and proportional to the omission or violation to which it relates.

The Bureau seeks comment on what revisions to the cost analysis provisions in § 1026.52(b)(1)(i), if any, may be appropriate to ensure that late fee amounts determined pursuant to those provisions are reasonable and proportional and to facilitate compliance. The Bureau also seeks comment on whether to eliminate the safe harbor provisions for late fees, rather than lowering the safe harbor amounts to a fee amount of $8 for the first and subsequent violations as proposed. As discussed above, the Bureau anticipates that, under the proposal to lower the late fee safe harbor amount, some card issuers whose pre-charge-off collection costs are higher than $8 would opt instead to determine their late fee amounts under the cost

[131] In the ANPR, the Bureau solicited comment on a staggered late fee approach but received no responsive comments.

analysis provisions. Thus, the Bureau notes that its requests for comment on potential revisions to the cost analysis provisions are relevant to both retaining the safe harbor provisions as proposed or eliminating the safe harbor provisions for late fees.

In particular, the Bureau seeks comment on what additional guidance, if any, should be added to the commentary to § 1026.52(b)(1)(i) concerning the specific costs and other factors that card issuers may take into account in determining late fee amounts, including any relevant data or information. Such factors include those that the Bureau must consider under the CARD Act, such as deterrence and consumer conduct, in issuing rules to establish standards for assessing whether the amount of any penalty fee is reasonable and proportional to the omission or violation to which it relates.

The Bureau also seeks comment on whether and to what extent to rely on the Bureau's analysis of data related to collection costs, deterrence, and consumer conduct, as discussed above, in making any revisions to the cost analysis provisions. In addition, the Bureau seeks comment on what additional requirements related to card issuers' internal processes and procedures for calculating and documenting costs, if any, the Bureau should adopt to ensure compliance.

The Bureau also seeks comment on whether to eliminate the safe harbor for all other credit card penalty fees, including fees for returned payments, over-the-limit transactions, and fees charged when payment on a check that accesses a credit card account is declined. For such fees, the Bureau seeks particular comment on what guidance, if any, should be added to the cost analysis provisions in § 1026.52(b)(1)(i) or related commentary concerning the specific costs and other factors that card issuers may take into account in determining that fee amounts are reasonable and proportional to the costs of the specific violation, including any data or information relevant to the factors that the Bureau must consider under the CARD Act in issuing rules to establish standards for assessing whether the amount of any penalty fee is reasonable and proportional to the omission or violation to which it relates. In addition, the Bureau seeks comments on what additional requirements related to card issuers' internal processes and procedures for calculating and documenting costs, if any, the Bureau should adopt to ensure compliance.

52(b)(1)(ii)(C)

As noted above, the Bureau is not proposing to lower the safe harbor amount of a late fee that card issuers may impose under the special rule in § 1026.52(b)(1)(ii)(C) when a charge card account becomes seriously delinquent. Under the special rule, a card issuer may impose a fee of 3 percent of the delinquent balance on a charge card account that requires payment of outstanding balances in full at the end of each billing cycle if the card issuer has not received the required payment for two or more consecutive billing cycles. This provision, as discussed above, is intended to provide charge card issuers with more flexibility to charge higher late fees and thereby manage credit risk when an account becomes seriously delinquent, because charge card issuers do not apply an APR to the account balance and therefore cannot respond to serious delinquencies by increasing that rate, as other card issuers can. For clarity, the Bureau proposes to amend the special rule to provide that card issuers may impose a fee on a charge card account in those circumstances notwithstanding the limitation on the amount of a late payment fee in proposed § 1026.52(b)(1)(ii). In addition, the Bureau proposes to amend comment 52(b)(1)(ii)–3, which provides illustrative examples of the application of § 1026.52(b)(1)(ii)(C). The proposed rule would amend these examples to use a $8 late fee amount, consistent with the proposed changes to the late fee safe harbor amount in proposed § 1026.52(b)(1)(ii). The proposed rule also would amend a cross reference contained in comment 52(b)(1)(ii)–3.iii so that it would correctly reference paragraph i.

52(b)(1)(ii)(D)

Section 1026.52(b)(1)(ii)(D) provides that the dollar safe harbor amounts for penalty fees set forth in § 1026.52(b)(1)(ii)(A) and (B) will be adjusted annually by the Bureau to reflect the changes in the CPI. The Board included this provision in its Regulation Z, § 226.52(b)(1)(ii)(D) as part of its 2010 Final Rule where it determined that changes in the CPI, while not a perfect substitute, would be ''sufficiently similar to changes in issuers' costs and the deterrent effect of the safe harbor amounts.'' [132] In reaching this determination, the Board rejected commentators' arguments that the Board should adjust the safe harbor amounts as appropriate through rulemaking because the Board believed that this approach would be inefficient.[133]

The Bureau proposes to no longer apply the annual adjustments to the safe harbor amount for late fees. The proposed rule would accomplish this by including the $8 proposed late fee safe harbor amount in the lead in text to § 1026.52(b)(1)(ii), instead of including it in § 1026.52(b)(1)(ii)(A) or (B). Thus, § 1026.52(b)(1)(ii)(D), which only applies the safe harbor adjustment to the dollar safe harbor amounts in § 1026.52(b)(1)(ii)(A) and (B), would no longer apply to the late fee safe harbor amount. The Bureau proposes one technical change to the cross reference to § 1026.52(b)(1)(ii)(A) and (B) used in § 1026.52(b)(1)(ii)(D) to conform to OFR style requirements. In addition, for clarity, the proposed rule would amend the lead-in paragraph in comment 52(b)(1)(ii)–2 to indicate that the inflation adjustment in § 1026.52(b)(1)(ii)(D) does not apply to late fees. Under the proposal, § 1026.52(b)(1)(ii)(D) would continue to apply to the dollar amount safe harbor amounts that apply to other penalty fees, such as over-the-limit fees, and returned-payment fees. With respect to the dollar amount of the late fee safe harbor, the Bureau would then monitor the safe harbor amount for late fees for potential adjustments as necessary. In addition, although the Bureau's proposal is limited to late fees given available data, the Bureau also seeks comment about whether the same approach should be taken with respect to other penalty fees.

The Bureau notes that inflation adjustments, annual or otherwise, are not statutorily required. TILA section 149, however, does statutorily require that any late payment fee or any other penalty fee or charge, must be ''reasonable and proportional'' to such omission or violation. When the Board determined that the dollar safe harbor amounts for penalty fees should be subjected to automatic annual inflation adjustments, it did not expressly consider the effect such adjustments may have on the reasonableness and proportionality of the late payment fee (or any other penalty fee). The Board also did not provide any other data or evidence to support these adjustments as necessary. Instead, the Board summarily stated that automatic annual adjustment would be ''sufficiently similar to changes in issuers' costs and the deterrent effect of the safe harbor

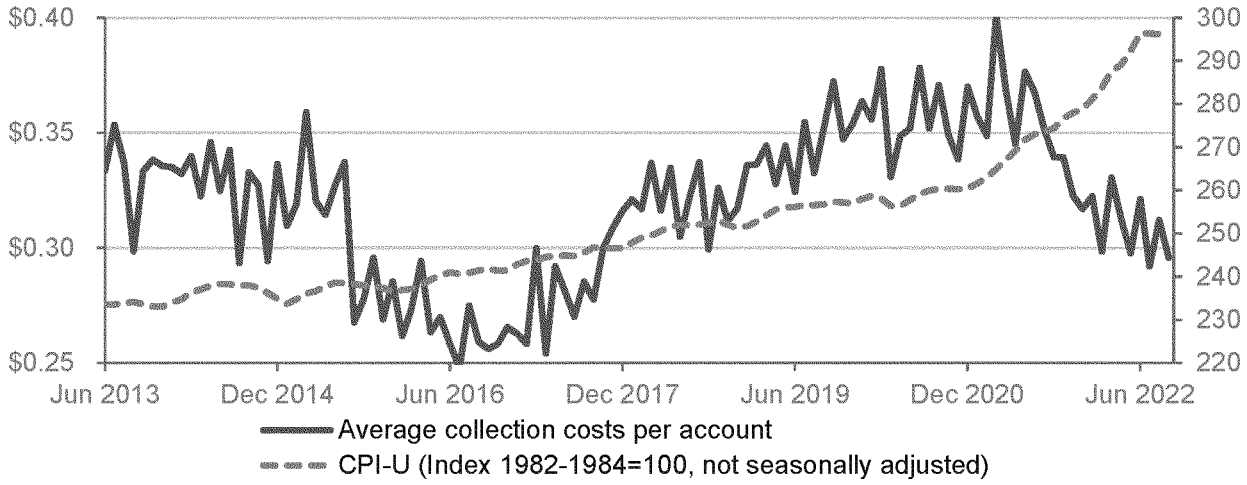
[132] 75 FR 37526, 37543 (June 29, 2010).

[133] *Id.*

amounts'' [134] and also considered efficiency, which is not statutorily required. The Board did not go into further details on why an automatic annual adjustment would be similar to changes in issuers' costs and the deterrent effect of the safe harbor amounts.

The Bureau analyzed relevant data that was not available to the Board to take into consideration the statutorily mandated reasonable and proportional standard by considering the costs incurred as a result of the violation in determining whether a fee amount is reasonable and proportional. The Bureau, based on this data, has preliminarily determined that automatic adjustments based on the CPI are not necessarily reflective of how the cost of late payment to issuers changes over time and, therefore, may not reflect the ''reasonable and proportional'' standard in the statute. While issuers' costs do appear to be trending up, it does not appear that they are doing so lockstep with inflation particularly when considering the month-to-month changes in inflation versus costs. Additionally, there are factors outside of inflation that may impact when issuers' cost goes up and by how much. Figure 2 below shows monthly per-account collection costs in the Y–14 collection (for all consumer portfolios with positive costs that month, solid line) and the CPI–U price index since 2013 (dashed). Given that the costs fluctuate more than the price level, any overarching trend in costs is better dealt with through ad hoc adjustments when the safe harbor amounts are revisited.

Figure 2: Collection Cost and Price Index Trends (Y-14)



Thus, the Bureau has considered the cost incurred as a result of a late payment violation and has preliminarily determined that this proposal is more aligned with Congress' intent for late fees to be reasonable and proportional than the current provision which requires the Bureau to adjust for inflation regardless of what the exact changes are, if any, in actual costs incurred by the card issuer.

As noted above, the Board also briefly considered deterrence and efficiency when making the determination to implement an automatic adjustment for inflation. The Bureau has preliminarily determined that deterrence should not be the driving factor in whether the late fee safe harbor amount should be automatically adjusted according to the CPI, nor should it outweigh considerations of issuers' costs. The Bureau notes while it is possible for the deterrent effect of the safe harbor amount to be eroded year-to-year with inflation, there are three overriding considerations as to why that does not necessarily mean there should be an automatic adjustment for inflation. First, the Bureau has preliminarily determined that it does not intend to tightly peg the deterrent effect to a specific value and recognizes there may be a range of values under which the deterrent effect would be suitable. The deterrence of the proposed safe harbor amount is sufficiently high so that the Bureau is not concerned by the lesser deterrence of a potentially eroded real value under realistic trajectories for medium-term inflation before any potential readjustment could be put in effect. Second, similar to the cost analysis above, the Bureau preliminarily finds that the deterrent effect does not move in lockstep with the CPI. Third the Bureau monitors the market so, under this proposal, the Bureau would be able to make adjustments to the safe harbor amount on an ad hoc basis based on this monitoring, at which point the Bureau would again consider the deterrent effect when promulgating a new safe harbor amount. While TILA section 149 authorizes the Bureau to consider other factors that the Bureau deems necessary and important in issuing rules to establish standards for assessing whether the amount of any penalty fee is reasonable and proportional, the Bureau has preliminarily determined that consideration of costs incurred, and the deterrent effect outweigh consideration of efficiency to help ensure that late fee amounts are reasonable and proportional.

The Bureau solicits comment on this proposal to eliminate the automatic annual adjustments to reflect changes in the CPI for the late fee safe harbor amount, including data and evidence as to why the adjustment may or may not reflect the reasonable and proportional standard. The Bureau also seeks

[134] *Id.*

comment on potential future monitoring or other approaches to ensure that the late fee amount is consistent with the reasonable and proportional standard. The Bureau also solicits comments on whether automatic annual adjustments to reflect changes in the CPI should be eliminated for all other penalty fees subject to § 1026.52(b), including over-the-limit fees, returned-payment fees, and declined access check fees.

52(b)(2) Prohibited Fees

As previously discussed, a card issuer must not impose a fee for violating the terms or other requirements of a credit card account under an open-end (not home-secured) consumer credit plan unless the dollar amount of the fee is consistent with § 1026.52(b)(1) and (2). Section 1026.52(b)(2) provides certain circumstances where fees are prohibited. Specifically, § 1026.52(b)(2) prohibits (1) fees that exceed the dollar amount associated with the violation; and (2) multiple fees based on a single event or transaction.

The Bureau received comments in response to the ANPR from consumer group commenters indicating that the Bureau should prohibit the assessment of a late fee without first providing consumers with a period of time after each due date to make the required payment (a ''courtesy period''). These consumer group commenters noted that courtesy periods are already utilized by financial institutions in other financial products and services. For example, these consumer group commenters indicated that mortgage loan contracts typically provide a courtesy period of 10 or 15 days after the due date during which time borrowers may make a payment without penalty.

The Bureau also received comments from multiple industry commenters indicating that they already provide consumers with a courtesy period on their credit card accounts before a late fee is assessed on an account. Other industry commenters also indicated that card issuers do not take significant action to collect late payments immediately after the due date but instead wait to begin or otherwise increase activity surrounding collection of the late payment.

Commenters also noted when card issuers generally consider a consumer late from a risk perspective. Consumer group commenters explained that for credit reporting purposes, card issuers typically do not treat a consumer as late until payment is 30 days past due. This was additionally supported by (1) an industry commenter that noted late payments are not reported to credit bureaus until a cardholder reaches 30 days past due; and (2) another industry commenter that reported they generally do not hand off accounts to third-party debt collectors until the cardholder is continuously delinquent or has repeated late payments for a period of 2–6 months.

The Bureau also received other comments from consumer group commenters that illustrated how delays beyond consumers' control contribute to the assessment of late fees. For example, consumers who pay electronically may experience a delay in payment processing for payments made over weekends. These unintended late payments could be avoided with the implementation of a courtesy period.

In light of these comments, the Bureau is considering whether to require a courtesy period, which would prohibit late fees imposed within 15 calendar days after each payment due date and be applicable only to late fees assessed if the card issuer uses the safe harbor or alternatively, applicable to all late fees generally (regardless of whether the card issuer assesses late fees pursuant to the safe harbor amount set forth in § 1026.52(b)(1)(ii) or the cost analysis provisions set forth in § 1026.52(b)(1)(i)). The Bureau has preliminary determined that it may be appropriate that the late fee amount essentially be $0 during the courtesy period because, as noted above, card issuers may not incur significant costs to collect late payments immediately after a late payment violation.

Further, given that the late payments may be caused by problems with unavoidable processing delays, the implementation of a courtesy period also is consistent with considerations of consumer conduct and deterrence, since, in these circumstances, the consumer attempted to pay timely. To the extent card issuers face increased cost from this 15-day courtesy period, the Bureau also believes that issuers have options that may not have been as readily available at the time of the Board's 2010 Final Rule to encourage timely payment, like sending notifications to consumers to warn them of payment due dates or facilitating automatic payment.

The Bureau solicits comments on whether § 1026.52(b)(2) should be amended to provide for a courtesy period which would prohibit late fees imposed within 15 calendar days after each payment due date. The Bureau additionally solicits comment on whether, if a 15-day courtesy period is required, the courtesy period should be applicable only to late fees assessed if the card issuer is using the late fee safe harbor amount (in which case § 1026.52(b)(1)(ii) would be amended instead of § 1026.52(b)(2)) or alternatively, if the courtesy period should be applicable generally (regardless of whether the card issuer assesses late fees pursuant to the safe harbor amount set forth in § 1026.52(b)(1)(ii) or the cost analysis provisions set forth in § 1026.52(b)(1)(i)). The Bureau also solicits comment, as well as data, on whether a courtesy period of fewer or greater than 15 days may be appropriate.

The Bureau notes that the alternative of applying a 15-day courtesy period only to use of the safe harbor late fee amount may have certain unintended effects on the possible late fee amounts assessed under the cost analysis provisions. To illustrate, using the Y–14 data, the Bureau estimated that a 15-day courtesy period tied to the safe harbor would cut the incidence of consumers charged the proposed $8 safe harbor amount by as much as half.[135] This would cause card issuers who use the safe harbor amount to recover as much as half of what they would recover if a 15-day courtesy period were not required. Card issuers who use the safe harbor amount, therefore, would recover an average of $4 in late fees per late payment. On the other hand, card issuers that opt to use the cost analysis provisions to assess late fees would not be required to provide a 15-day courtesy period. This could result in an outcome where card issuers who used the cost analysis provisions to determine the late fee amount could charge a late fee that is less than the proposed safe harbor amount, for example $6, but still, on average, collect more in total late fees than if they charged the proposed $8 late fee amount. In this example, they could charge $6 on 100 percent of incidences, whereas if they used the proposed $8 safe harbor amount, they could only charge the proposed $8 on approximately half of the incidences. This could lead to a scenario where consumers who are subject to late fees determined by the cost analysis provisions may be assessed a lower late fee amount than the proposed $8 late fee safe harbor amount but would be charged a late fee more frequently than consumers who are subject to the late fee safe harbor amount.

The Bureau additionally solicits comments on whether a 15-day courtesy period should apply to the other penalty fees that are subject to § 1026.52(b), including over-the-limit fees and

[135] For more information related to the estimates using the Y–14 data of how many days after the due date accounts that incurred a late fee paid the amount due, *see* Figure 4 and related discussion in part VII.

returned-payment fees, and if so, why it would be appropriate to apply a 15-day courtesy period to these other penalty fees. For example, should the Bureau provide consumers with (1) 15 calendar days after the billing cycle ends to bring the balance below the credit limit to avoid being charged an over-the-limit fee; and (2) 15 calendar days after each due date to make the required periodic payment to avoid a returned-payment fee if a payment has been returned. With respect to declined access checks, is a 15-day courtesy period appropriate and if so, how should it be structured?

52(b)(2)(i) Fees That Exceed Dollar Amount Associated With Violation

Section 1026.52(b)(2)(i)(A) provides that a card issuer must not impose a fee for violating the terms or other requirements of a credit card account under an open-end (not home-secured) consumer credit plan that exceeds the dollar amount associated with the violation. For late fees, accompanying comment 52(b)(2)(i)–1 provides that the dollar amount associated with a late payment is the full amount of the required minimum periodic payment due immediately prior to assessment of the late payment. Thus, § 1026.52(b)(2)(i)(A) prohibits a card issuer from imposing a late payment fee that exceeds the full amount of the required minimum periodic payment.

In implementing TILA section 149, the Board noted that the prohibition of fees based on violations of the terms or other requirements of an account that exceed the dollar amount associated with the violation as set forth in its Regulation Z, § 226.52(b)(2)(i)(A) would be consistent with Congress' intent to prohibit penalty fees that are not reasonable and proportional to the violation.[136] The Board in its reasoning addressed issuers' concerns that when the dollar amount associated with a violation is small, § 226.52(b)(2)(i)(A) could limit the penalty fee to an amount that is neither sufficient to cover the issuer's costs nor to deter future violations.[137] The Board explained that while it is possible that an issuer could incur costs as a result of a violation that exceed the dollar amount associated with that violation, this would not be the case for most violations.[138] Additionally, the Board noted that if card issuers could not recover all of their costs when a violation involves a small dollar amount, prohibiting late fees that exceed the full amount of the required minimum periodic payment would encourage them either to undertake efforts to reduce the costs incurred as a result of violations that involve small dollar amounts or to build those costs into upfront rates, which would result in greater transparency for consumers regarding the cost of using their credit card accounts.[139] Furthermore, the Board considered the deterrent effect and believed that violations involving small dollar amounts are more likely to be inadvertent and therefore the need for deterrence is less pronounced.[140]

The Board also considered whether compliance with its Regulation Z, § 226.52(b)(2)(i)(A) would be burdensome on card issuers and concluded that it would not be overly burdensome.[141] The Board explained that, although card issuers may incur substantial costs at the outset, because § 226.52(b)(2)(i)(A) required a mathematical determination, issuers should generally be able to program their systems to perform the determination automatically.[142]

When implementing comment 52(b)(2)(i)–1, the Board clarified that the dollar amount associated with a late payment is the full amount of the required minimum periodic payment due immediately prior to the assessment of the late payment. Industry commenters had argued that the dollar amount associated with a late payment should be the outstanding balance on the account because that is the amount the issuer stands to lose if the delinquency continues and the account eventually becomes a loss.[143] However, the Board explained that relatively few delinquencies result in losses, and the violation giving rise to a late payment fee is the consumer's failure to make the required minimum periodic payment by the payment due date.

The Bureau proposes to amend § 1026.52(b)(2)(i)(A) to limit the dollar amount associated with a late payment to 25 percent of the required minimum periodic payment due immediately prior to assessment of the late payment. The Bureau also proposes to revise comment 52(b)(2)(i)–1 in the following two ways: (1) to clarify that the required minimum periodic payment due immediately prior to assessment of the late payment is the amount that the consumer is required to pay to avoid the late payment fee, including as applicable any missed payments and fees assessed from prior billing cycles; and (2) to revise several examples consistent with the proposed 25 percent limitation.

Like the Board's reasoning in the 2010 Final Rule, this proposal intends to ensure that late fees are reasonable and proportional, even late fees that are imposed when consumers are late in paying small minimum payments. However, the Bureau has preliminarily determined that restricting the late fee to 25 percent of the minimum payment is more consistent with Congress' intent to prohibit penalty fees that are not reasonable and proportional to the violation than the current rule that allows for a card issuer to potentially charge a late fee that is 100 percent of the minimum payment.

For example, when considering collection costs incurred by card issuers, it is likely that allowing a late fee that is 100 percent of the minimum payment is not reasonable and proportional to such costs. Generally, most card issuers do not incur collection costs that are 100 percent of the amount they are trying to collect. The Bureau has preliminarily determined that lowering the limitation on late fees to 25 percent of the minimum payment due would still likely allow card issuers to cover contingency fees paid to third-party agencies for collecting the amount of the minimum payment prior to account charge-off. The Bureau understands, based on information requests issued under order for purposes of compiling the Bureau's periodic CARD Act reports to Congress, that card issuers that contract with third-party agencies for pre-charge-off collections pay a contingency fee that is a percentage of the amount collected, which may include an amount (if collected) exceeding the minimum payment. These contingency fees can range from 9.5 percent to 23 percent, further supporting that the proposed 25 percent of minimum payment due is more reasonable and proportional than permitting 100 percent of the minimum payment.[144] It appears that the Board did not consider or have access to such figures when it limited the dollar amount associated with a late payment to 100 percent of the required minimum periodic payment. With this additional data, the Bureau proposes a limitation on late fees that it has preliminarily determined is more reasonable and proportional than what was set forth in the Board's 2010 Final Rule.

The Bureau recognizes that the proposed 25 percent limitation would most likely impact the amount of the

[136] 75 FR 37526, 37544 (June 29, 2010).

[137] *Id.* at 37545.

[138] *Id.*

[139] *Id.*

[140] *Id.*

[141] *Id.*

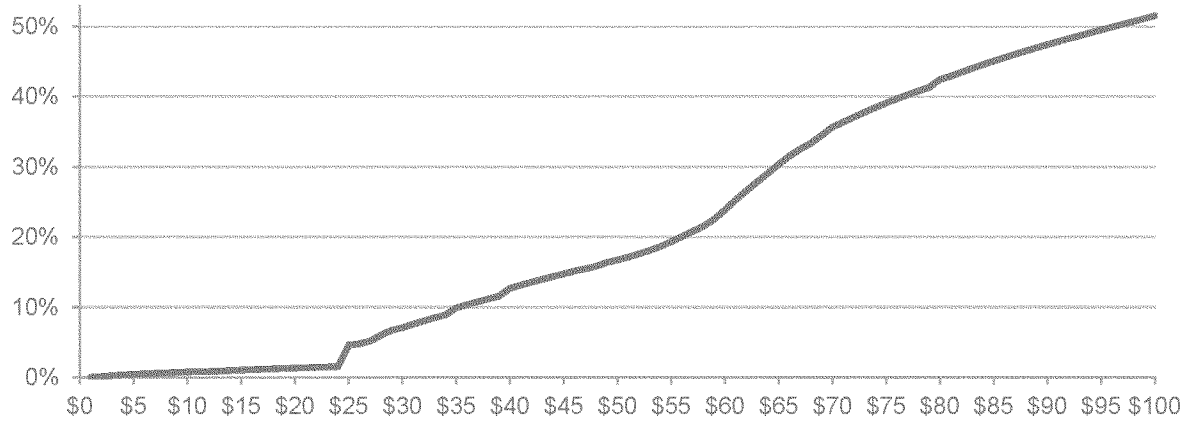
[142] *Id.*

[143] *Id.*

[144] 2021 Report, at 137.

late fee a card issuer can charge when (1) the minimum payment is small, and (2) the card issuer is using the cost analysis provisions in § 1026.52(b)(1)(i) generally to set the late fee amount. Based on the distribution of minimum payments in the Y–14 data, the Bureau estimates that this may occur infrequently. Y–14 data from October 2021 to September 2022 shows that for those months in which an account was late, only 12.7 percent of accounts had a minimum payment of $40 or less. Additionally for those months in which an account was late, at least 48.5 percent of accounts had a minimum payment above $100. If a card issuer is using the proposed late fee safe harbor of $8, however, the instances where 25 percent of the minimum payment may be less than the proposed $8 safe harbor appear to be even less frequent. For instance, based on the distribution of minimum payments due in the Y–14 on a monthly basis from October 2021 to September 2022, if card issuers could only charge up to 25 percent of the minimum payment, only 7.7 percent of accounts would have been charged a late fee of less than $8. Figure 3 plots the cumulative distribution function [145] of total payments due in the range of $1 to $100 in the account-level Y–14 data, for all months payments were late between October 2021 and September 2022.

Figure 3: Distribution of Minimum Payments on Late Accounts (Y-14)



Additionally, when the dollar amount associated with the late payment is small, the Bureau recognizes that the proposal could have the potential to limit the late fee to an amount that is insufficient to cover a card issuer's costs in collecting the late payment. However, permitting a late fee that is 100 percent of the minimum payment does not appear to be reasonable and proportional to the consumer's conduct of paying late when the minimum payment is small. For instance, in situations where the dollar amount associated with the late payment is small and the card issuer is permitted to charge a late fee that is 100 percent of the minimum payment then a consumer is essentially required to pay double the amount of a missed payment in the next billing cycle in addition to the minimum payment due for that next billing cycle. This result is neither reasonable nor proportional to the consumer's conduct in paying late.

Furthermore, as the Board noted in its 2010 Final Rule and which the Bureau has preliminarily determined is still relevant here, to the extent card issuers cannot recover all of their costs through a late fee when a late payment involves a small dollar amount, the proposed limitation will likely encourage card issuers to undertake efforts to either reduce costs incurred as a result of violations that involve small dollar amounts or to build those costs into upfront rates, which has the additional benefit of resulting in greater transparency for consumers regarding the cost of using credit card accounts. Finally, the Bureau has preliminarily determined that the Board's explanation that compliance would not be overly burdensome also remains applicable to the Bureau's proposal. The proposal would similarly require a mathematical determination that issuers should generally be able to program their systems to perform automatically.

In addition, as discussed above, the Bureau proposes to revise comment 52(b)(2)(i)–1 to clarify that the required minimum periodic payment due immediately prior to assessment of the late payment is the amount that the consumer is required to pay to avoid the late payment fee, including as applicable any missed payments and fees assessed from prior billing cycles. The Bureau understands that card issuers report two payment amounts when responding to Y–14 collection efforts, a minimum payment calculated just for that billing cycle and the total amount that is required to be paid that billing cycle which includes missed payment amounts or fees assessed. The Bureau proposes this revision to comment 52(b)(2)(i)–1 to address any potential confusion about the payment amount to which the proposed 25 percent limitation would apply.

The Bureau solicits comment on the proposed 25 percent limitation discussed above. The Bureau also solicits comment on whether the dollar amount associated with the other penalty fees covered by § 1026.52(b) should be limited to 25 percent of the dollar amount associated with the violation. For example, (1) should over-the-limit fees be limited to 25 percent of the amount of credit extended by the

[145] The values plotted vertically are the shares of account-months that paid late with minimum payments at or below the integer dollar amounts shown on the horizontal axis.

card issuer in excess of the credit limit during the billing cycle in which the over-the-limit fee is imposed; [146] (2) should the returned-payment fee be limited to 25 percent of the amount of the required minimum periodic payment due immediately prior to the date on which the payment is returned to the card issuer; [147] and (3) should the declined access check fee be limited to 25 percent of the amount of the check.[148]

52(b)(2)(ii) Multiple Fees Based on a Single Event or Transaction

Section 1026.52(b)(2)(ii) prohibits card issuers from imposing multiple penalty fees based on a single event or transaction. The Bureau is not proposing to amend the text of § 1026.52(b)(2)(ii). However, the Bureau proposes to revise comment 52(b)(2)(ii)–1 to clarify several examples illustrating this requirement. Specifically, the proposed rule would amend several examples in comment 52(b)(2)(ii)–1 to reflect a late fee amount of $8, consistent with the proposed amendments to § 1026.52(b)(1)(ii), and to make minor technical changes for consistency with the proposal.

Section 1026.60 Credit and Charge Card Applications and Solicitations

60(a) General Rules

60(a)(2) Form of Disclosures; Tabular Format

Section 1026.60(a) provides that a card issuer must provide the disclosures set forth in § 1026.60 on or with a solicitation or an application to open a credit or charge card account. Section 1026.60(a)(2) provides certain format requirements for the disclosures required under § 1026.60. Section 1026.60(a)(2)(i) provides that in certain circumstances the disclosures required by § 1026.60 generally must be disclosed in a tabular format. Section 1026.60(a)(2)(ii) provides that when a tabular format is required, certain disclosures must be disclosed in the table using bold text, including any late fee amounts and any maximum limits on late fee amounts required to be disclosed under § 1026.60(b)(9). Comment 60(a)(2)–5.ii includes a late fee example to illustrate the requirement that any maximum limits on fee amounts must be disclosed in bold text. The current example assumes that a card issuer's late fee will not exceed $35. The proposed rule would amend the example to assume that the late fee will not exceed $8, so that the maximum late fee amount in the example would be consistent with the proposed $8 late fee safe harbor amount set forth in proposed § 1026.52(b)(1)(ii).

Appendix G to Part 1026—Open-End Model Forms and Clauses

Appendix G to part 1026 generally provides model or sample forms or clauses for complying with certain disclosure requirements applicable to open-end credit plans, including a credit card account under an open-end (not home-secured) consumer credit plan. The following five sample forms or clauses set forth an example of the maximum late fee amount of ''Up to $35'' under the heading ''Late Payment'': (1) G–10(B); (2) G–10(C); (3) G–10(E); (4) G–17(B); and (5) G–17(C). The following two sample forms set forth an example of the maximum late fee amount of ''Up to $35'' under the heading ''Late Payment Warning'': (1) G–18(D); and (2) G–18(F). Sample form G–21 sets forth an example of the maximum late fee amount of ''Up to $35'' under the heading ''Late Payment Fee.'' The following two sample form or clause set forth an example of the late fee amount ($35) a consumer may incur if the consumer does not pay the required amount by the due date under the heading ''Late Payment Warning'': (1) G–18(B); and (2) G–18(G). The following three sample forms set forth an example of the late fee amount ($35) that the consumer was charged in the particular billing cycle under the heading ''Fees'': (1) G–18(A); (2) G–18(F); and (3) G–18(G).

The Bureau solicits comment on whether the late fee amounts of $35 in these sample forms or clauses, as applicable, should be revised to set forth late fee amounts of $8, and whether the maximum late fee amounts of ''Up to $35'' in these sample forms or clauses, as applicable, should be revised to set forth a maximum late fee amount of ''Up to $8'' so that the late fee amounts and maximum late fee amounts in the examples are consistent with the proposed $8 late fee safe harbor amount set forth in proposed § 1026.52(b)(1)(ii). The Bureau notes that the 11 forms or clauses discussed above are just samples; card issuers would need to disclose the late fee amount that they charge or the maximum late fee amount on the account, as applicable, consistent with the restrictions in § 1026.52(b).

In addition, as discussed in the section-by-section analysis of § 1026.52(b)(2)(i), the Bureau solicits comment on whether to restrict card issuers from imposing a late fee on a credit card account, unless the consumer has not made the required payment within 15 calendar days following the due date. If the Bureau were to adopt such a limitation, the Bureau solicits comment on whether the following 10 sample forms or clauses that currently disclose an example of the late fee amount ($35) or maximum late fee amount (''Up to $35'') that could be incurred on the account should be revised to disclose that a late fee will only be charged if the consumer does not make the required payment within 15 calendar days of the due date: (1) G–10(B); (2) G–10(C); (3) G–10(E); (4) G–17(B); (5) G–17(C); (6) G–18(B); (7) G–18(D); (8) G–18(F),[149] (9) G–18(G); [150] and (10) G–21.[151] If such a disclosure were required, the Bureau also solicits comment on effective ways to help ensure that consumers understand that a 15-day courtesy period only relates to the late fee, and not to other possible consequences of paying late, such as the loss of a grace period or the application of a penalty rate.

In addition, the Bureau notes that the following five samples forms also include disclosures about maximum penalty fee amounts of ''Up to $35'' for over-the-limit fees [152] and returned-payment fees: (1) G–10(B); (2) G–10(C);

[146] *See* comment 52(b)(2)(i)–3 for an explanation of the dollar amount associated with an over-the-limit violation.

[147] *See* comment 52(b)(2)(i)–2 for an explanation of the dollar amount associated with a returned-payment violation.

[148] *See* comment 52(b)(2)(i)–4 for an explanation of the dollar amount associated with a declined access check violation.

[149] Sample Form G–18(F) contains two examples of late fees—one example is the maximum late fee of ''Up to $35'' under the heading ''Late Fee Warning'' and the other example is the late fee ($35) that was charged to the consumer in the particular billing cycle under the heading ''Fees.'' The Bureau solicits comment only on whether the 15-day courtesy period should be incorporated into the ''Late Fee Warning'' to indicate the late fee would only be charged if the consumer does not make the required payment within 15 calendar days after each due date. The 15-day courtesy period disclosure would not be appropriate for the example of the late fee under the heading ''Fee.''

[150] Sample Form G–18(G) contains two examples of late fees—one example is the late fee of ''$35'' under the heading ''Late Fee Warning'' and the other example is the late fee ($35) that was charged to the consumer in the particular billing cycle under the heading ''Fees.'' The Bureau solicits comment only on whether the 15-day courtesy period should be incorporated into the ''Late Fee Warning'' to indicate the late fee would only be charged if the consumer does not make the required payment within 15 calendar days after each due date. The 15-day courtesy period disclosure would not be appropriate for the example of the late fee under the heading ''Fee.''

[151] Sample Form G–18(A) only provides an example of a late fee that has been charged on the account in that billing cycle (*see* late fee disclosed under the ''Fees'' heading), so a disclosure of the 15-day courtesy period would not be appropriate for this disclosure.

[152] These sample forms refer to over-the-limit fees as ''over-the-credit-limit fees.''

(3) G–10(E); (4) G–17(B); and (5) G–17(C). As discussed in the section-by-section analysis of § 1026.52(b)(1)(ii), the Bureau solicits comment on whether the $8 safe harbor threshold amount that is being proposed for late fees should also apply to other penalty fees, including over-the-limit fees and returned-payment fees. If the Bureau were to adopt the $8 safe harbor threshold amount for all penalty fees, the Bureau solicits comment on whether the Bureau should revise the maximum amount of the over-the-credit-limit fees and returned-payment fees shown on these forms to be ''Up to $8.'' Moreover, in the section-by-section analysis of § 1026.52(b)(2)(i), the Bureau solicits comment on whether the 15-day courtesy period should be provided with respect to all penalty fee, including the over-the-credit-limit fees and returned-payment fees. If the Bureau were to adopt the 15-day courtesy period to all penalty fees, the Bureau solicit comment on the 15-day courtesy period should be disclosed in the five sample forms discussed above with respect to the over-the-limit fee and the returned-payment fee.

VI. Effective Date

The Bureau proposes that the final rule, if adopted, would take effect 60 days after publication in the **Federal Register**. The Bureau solicits comment on whether the Bureau should provide a mandatory compliance date that is after the effective date for the proposed changes, if adopted, to the limitations and prohibitions on late fees in § 1026.52(b)(1) and (b)(2), other than the proposed change to § 1026.52(b)(1)(ii)(D) that would provide that future inflation adjustments for safe harbor amounts do not apply to the late fee safe harbor amount. Do card issuers need additional time after the effective date to make changes to their disclosures to reflect the changes in the late fee amounts that they are charging on credit card accounts? If so, when should compliance with the proposed changes, if adopted, be mandatory?

Separately, under TILA section 105(d), Bureau regulations requiring any disclosure which differs from disclosures previously required by part A, part D, or part E shall have an effective date of October 1 which follows by at least six months the date of promulgation subject to certain exceptions.[153]

To the extent that TILA section 105(d) may apply to any proposed changes requiring disclosures, it would not necessitate the October 1 effective date for purposes of the late fee disclosure for two reasons. First, under Regulation Z, card issuers are currently required to disclose the late fees amounts, or maximum late fees amounts, as applicable, that apply to credit card accounts in certain disclosures, and the disclosure of those late fee amounts must reflect the terms of the legal obligation between the parties.[154] In other words, this proposal, if finalized, would not differ from the current requirement to disclose late fee amounts; instead, it would solely result in a change to the amount of the late fee disclosed for issuers using the safe harbor. Second, this change in amount applies to the safe harbor, which is an amount that card issuers may elect but are not required to use.

If the Bureau were to finalize the 15-day courtesy period on which the Bureau solicits comments as discussed in the section-by-section analysis of § 1026.52(b)(2)(i), consistent with TILA section 105(d), the Bureau solicits comment as to whether that courtesy period and potential disclosure language should have an effective date of ''October 1 which follows by at least six months the date of promulgation.'' [155]

VII. Dodd-Frank Act Section 1022(b) Analysis

A. Overview

In developing this proposed rule, the Bureau has considered the proposed rule's potential benefits, costs, and impacts in accordance with section 1022(b)(2)(A) of the Consumer Financial Protection Act of 2010 (CFPA).[156] The Bureau requests comment on the preliminary analysis presented below and submissions of additional data that could inform the Bureau's analysis of the benefits, costs, and impacts. In developing the proposed rule, the Bureau has consulted or offered to consult with the appropriate prudential regulators and other Federal agencies, including regarding the consistency of this proposed rule with any prudential, market, or systemic objectives administered by those agencies, in accordance with section 1022(b)(2)(B) of the CFPA.[157] The Bureau also consulted with agencies described in TILA section 149.[158]

B. Data Limitations and Quantification of Benefits, Costs, and Impacts

The discussion below relies on information that the Bureau has obtained from industry, other regulatory agencies, and publicly available sources, including reports published by the Bureau. These sources form the basis for the Bureau's consideration of the likely impacts of the proposed rule. The Bureau provides estimates, to the extent possible, of the potential benefits and costs to consumers and covered persons of this proposal, given available data.

Specifically, this discussion relies on the Bureau's analysis of both portfolio and account data from the Y–14 collection, as described in part III.C above. The discussion also relies on data collected directly from a diverse set of credit card issuers to support the Bureau's biennial report on the state of the consumer credit card market as required by the CARD Act.[159] The Bureau also consulted the academic literature, as well as public comments in response to the Board's 2010 Final Rule and the Bureau's ANPR that preceded this proposal.

The Bureau acknowledges several important limitations that prevent a full determination of benefits, costs, and impacts. Quantifying the benefits, costs, and impacts requires quantifying consumer and card issuer responses to the proposed changes, and the Bureau finds the body of knowledge on relevant behavioral responses and elasticities incomplete. In particular, the Bureau is not aware of relevant, reliable, and quantified evidence that could be used to predict how changes to late fees would affect late payments and delinquencies or the expected substitution effects across credit cards and between credit cards and other forms of credit. Similarly, the Bureau believes there is little reliable quantitative evidence available on the cost and effectiveness of steps issuers might take to facilitate timely repayment, collect efficiently, reprice any of their services, remunerate their staff, suppliers, or sources of capital differently, or enter or exit any or all segments of the credit card market. The Bureau also believes there is little relevant evidence available on the impacts the proposed changes to the late fee provisions would have on charge cards or the effects of these potential changes on other penalty fees. Thus, while the data and research available to the Bureau provide an important basis for understanding the likely effects of the proposal, the data and research are

[153] 15 U.S.C. 1604(d).

[154] Section 1026.5(c) requires that ''disclosures shall reflect the terms of the legal obligation between the parties.''

[155] 15 U.S.C. 1604(d).

[156] 12 U.S.C. 5512(b)(2)(A).

[157] 12 U.S.C. 5512(b)(2)(B).

[158] 15 U.S.C. 1665d(b) and 1665d(e).

[159] 2021 Report, at 17.

not sufficient to fully quantify the potential effects of the proposal for consumers and issuers. This reflects in part the fact that the effects of the proposal would depend on choices made by independent actors in response to the proposal, and the data and research available to the Bureau do not permit reliable predictions of those choices.

In light of these data limitations, the analysis below provides quantitative estimates where possible and a qualitative discussion of the proposed rule's benefits, costs, and impacts. General economic principles and the Bureau's expertise, together with the available data, provide insight into these benefits, costs, and impacts. The Bureau requests additional data or studies that could help quantify the benefits and costs to consumers and covered persons of the proposed rule.

C. Baseline for Analysis

In evaluating the proposal's benefits, costs, and impacts, the Bureau considers the impacts against a baseline in which the Bureau takes no action. This baseline includes existing regulations and the current state of the market. In particular, it assumes (1) the continuation of the existing safe harbor amounts for credit card late fees, currently $30 generally and $41 for each subsequent late payment occurring in one of the next six billing cycles, and (2) that these amounts would continue to be adjusted when there are changes to the CPI in accordance with the current provision in § 1026.52(b)(1)(ii)(D).

D. Potential Benefits and Costs to Consumers and Covered Persons

This section discusses the benefits and costs to consumers and covered persons of (1) the proposed amendment to § 1026.52(b)(1)(ii) to lower the safe harbor dollar amount for late fees to $8 and no longer apply to late fees a higher safe harbor dollar amount for subsequent violations of the same type that occur during the same billing cycle or in one of the next six billing cycles; (2) the proposed amendment to § 1026.52(b)(2)(i)(A) to provide that late fee amounts must not exceed 25 percent of the required payment; and (3) the proposal to no longer apply inflation adjustments set forth in current § 1026.52(b)(1)(ii)(D) to the safe harbor amount for late fees. The proposal would also amend certain other comments to clarify the application of the rule and make conforming adjustments. The Bureau does not separately discuss the benefits and costs of these other amendments but believes they will generally lower compliance costs for card issuers and facilitate consumer understanding of the rule. Finally, the discussion below also considers the benefits and costs of certain other alternatives to the proposed provisions on which the Bureau is seeking comment in part V.

Potential Benefits and Costs to Consumers and Covered Persons of the Proposed Late Fee Safe Harbor Changes

The Bureau proposes to amend § 1026.52(b)(1)(ii) to lower the safe harbor amounts for late fees—currently set at $30 and $41 for a first and subsequent violation, respectively—to a late fee amount of $8 for the first and subsequent violations.[160] The Bureau's proposal would eliminate the higher safe harbor amount for subsequent late payment violations.

Potential Benefits and Costs to Consumers of the Proposed Late Fee Safe Harbor Changes

In general, the proposal to lower the safe harbor amount for late fees to $8 for first and subsequent violations would benefit consumers by reducing the amount they pay through late fees. This direct benefit may be offset to the extent that card issuers raise other prices in response and potentially if consumers respond to reduced late fees in ways that harm them in the long run. The discussion below begins with the direct benefits from lower fees, then turns to the possibility that those benefits are offset through changes to other prices, and then addresses the potential effects on consumers of changes to late payment behavior.

The direct benefits to consumers could be as high as the fees saved with the $8 fee amount on violations without or with a recent prior violation—that is, the difference between fees currently charged and the lower $8 amount. The Bureau previously estimated that aggregate late fees assessed for issuers in the Y–14+ data were $14 billion in 2019 and $12 billion in 2020 and that the average late fee charged was $31 in 2020.[161] Thus, if fees were reduced to $8, it would have reduced aggregate late fees charged to consumers by several billion dollars. To estimate the extent of the reduction, the Bureau examined Y–14 account-level data for the 12-month period from September 2021 to August 2022. The issuers in this sample represent an estimated 73 percent of aggregate credit card balances and reported collecting $5.688 billion in late fees during the period, and the Bureau estimates that the collected fees would have been $1.451 billion, or 74.6 percent lower, if fees had been $8 rather than the fees actually collected.[162] The Bureau does not have data from this recent period for any issuers other than those included in the Y–14 data. Assuming that the 73 percent of balances covered by these issuers with collection costs in the Y–14 data collection most recently is representative of the fee structure and incidence of the entire market, these figures would have implied $5.8 billion savings for consumers (not including any fees charged but not ultimately collected). However, the Y–14+ data suggest that late fee revenue per account at these Y–14 issuers is less than for other issuers. This implies a larger reduction in fee revenue at issuers excluded from the sample, meaning that $5.8 billion is therefore likely to be an underestimate of the potential reduction in fees. If the 74.6 percent reduction in fee revenue were applied to the total estimated $12 billion in late fees from 2020, it would imply a reduction in fee revenue of approximately $9 billion.

The estimated benefits to consumers may be lower than this, considering that smaller issuers, which make up many of the issuers not in the Y–14 collection, currently charge lower fees on average. In 2020, the average late fee for issuers in the Y–14+ data was $31. Based on the agreements in the Bureau's credit card agreement database, in 2020, the modal maximum disclosed late fee for smaller issuers was $25. Specifically, cardholders of these smaller issuers who pay late would benefit less from the proposed changes to the late fee safe harbor amounts than those of major issuers charging late fees closer to the existing safe harbor threshold amounts.

Conversely, the aggregate benefit to consumers will be higher than this estimate if issuers not in the Y–14 charge more late fees than the issuers in the Y–14 data. The Bureau's Y–14+ survey suggests that large issuers

[160] As discussed in the section-by-section analysis of § 1026.52(b)(1)(ii)(C) in part V, the Bureau is not proposing to lower or otherwise change the safe harbor amount of a late fee that card issuers may impose when a charge card account becomes seriously delinquent.

[161] Late Fee Report, at 4. As discussed in part III.C, the Y–14+ data includes information from the Board's Y–14 data and a diverse group of specialized issuers.

[162] By adjusting the collected late fee revenue with how assessed fee amounts would have changed, this analysis disregards the apparent but immaterial benefits to accounts whose assessed fees are not collected (but charged off). The Bureau estimates that this affects as much as 14 percent of late fee incidents. Also, as many as 5 percent of assessed late fees are reversed in later months (within-month waivers and reversals might already be netted out in the account data the Y–14 collection collects). The analysis here applied the same cap to reversals as to the original fees, thus minimizing the overcounting of benefits.

outside the Y–14 charge high late fee amounts and generate more late fee revenue per outstanding balances. Smaller issuers might also have enough late payment violations to cancel out the effect of small fee amounts on saved fees per incident.[163]

The benefits to consumers will be lower if issuers choose to set late fee amounts higher than the safe harbor amount by relying on cost analysis provisions in § 1026.52(b)(1)(i). Based on the available recent Y–14 data, the Bureau expects that fewer than four of the twelve covered issuers may use the cost analysis provisions to charge late fee amounts above $8 in the near future based on their reported pre-charge-off collection costs per paid violation. The Bureau's calculations suggest that if these major issuers relied on the cost analysis provisions in § 1026.52(b)(1)(i) while the others in the Y–14 data used the safe harbor amount, it would lower the mechanical impact of the proposed safe harbor amounts by 3 percent relative to the case of all Y–14 issuers charging late fees of $8 (from an estimated fee reduction of $4.23 billion for these Y–14 issuers to an estimated $4.11 billion), representing a reduction in fees collected of 72.3 percent for these issuers.[164] Assuming that the 73 percent of balances covered by these issuers with collection costs in the Y–14 data collection most recently is representative of the fee structure and incidence of the entire market, these figures would have implied $5.6 billion savings for consumers (not including any fees charged but not ultimately collected). However, as discussed above, the Y–14+ data suggest that late fee revenue per account at these Y–14 issuers is less than for other issuers. This implies a larger reduction in fee revenue at issuers excluded from the sample, meaning that $5.6 billion is therefore likely to be an underestimate of the potential reduction in fees. If the 72.3 percent reduction in fee revenue were applied to the total estimated $12 billion in late fees from 2020, it would imply a reduction in fee revenue of approximately $9 billion.

While the Bureau does not have comparable data on the collection costs of smaller issuers, the lower late fee amount they typically set suggests that a smaller share of smaller issuers than large issuers are likely to use the cost analysis provisions in § 1026.52(b)(1)(i). Consumer gains when issuers use the cost analysis provisions would be even lower if the cost analysis imposes additional costs on the issuers who resort to it, and, in turn, those issuers shift these costs to their cardholders. However, the Bureau expects these administrative costs to be small relative to revenue.

The above estimates do not consider potential responses by consumers to lower late fees—in particular, the possibility that consumers are more likely to miss a payment due date if the fee for doing so is reduced. If this occurs and more consumers make untimely payments, consumers could face costs for doing so, including costs like increased penalty interest rates or lower credit scores. Such a response would affect the estimates above, as well as the final incidence of the benefits and the burden. As discussed in part V above concerning deterrence, however, the available evidence (see the section-by-section analysis of § 1026.52(b)(2)(ii) in part V) leads the Bureau to expect that a $8 late fee would still have a deterrent effect on late payments, although that effect may be lessened by the proposed change to some extent, and other factors may be more relevant (or may become more relevant) towards creating deterrence. Even with a late fee of $8, consumers would have incentives to make their minimum payment on time to avoid the late fee and other potential consequences of paying late, such as the potential loss of the grace period, and potential credit reporting consequences. To the extent consumers are late in paying because they are inattentive to their account or because they are so cash-constrained that they are unable to make a minimum payment, the amount of the late fee may have little effect on whether they pay late. The Bureau, however, seeks comment on these potential costs to consumers, including data and information as to whether lower late fees for the first or subsequent payments may result in consumers being more likely to pay late and, if so, potential costs to consumers in terms of potential penalties or lower credit scores.

To the extent consumers who pay on time when faced with current late fees would instead rationally choose to make a late payment in response to lower late fees that would result from the proposal, those consumers would benefit from the additional flexibility that a lower late fee would afford. For such consumers, the benefit of delaying the minimum payment past the due date, net of the perceived other financial consequences of missing the due date, must be less than their account's existing late fees but greater than the fees that would result from the proposal. Their benefit from the rule would be less than the difference between the two fees, but it would still add to the total consumer gains from the proposal. More generally, all consumers would benefit from the option value of managing a potential episode of financial distress at lower costs if and when necessary.

Since the proposal would reduce issuers' revenue from late fees, issuers may respond by adjusting interest rates or other card terms to offset the lost income. Issuer responses will affect both the sum of consumer gains and their distribution across market segments and populations. Total consumer gains will be the lowest if issuers make up for all lost revenue and any potential cost increase by raising revenue by changing other consumer prices. This full offset could manifest in higher maintenance fees, lower rewards, or higher interest on interest-paying accounts.

Offsetting price increases are most likely where markets are most competitive since, in competitive markets, any reduction in revenue is likely to drive some firms out of the market, limiting supply and driving prices up for consumers. As the recent profitability of consumer credit card businesses suggests that these markets are imperfectly competitive, the Bureau expects less than full offset, with consumers gaining in total from reduced late fees.[165] The same observation

[163] The Board has been calculating quarterly credit card delinquency and charge-off rates from FFIEC Call Reports. The share of delinquent loans among loans outstanding has been around 2–3 times higher at banks outside the top 100 by consolidated foreign and domestic assets following 2017. The ratio of net credit card charge-offs over the average level of loans outstanding has been around 2 times higher among banks not in the top 100 since 2017. Bd. of Governors of the Fed. Rsrv. Sys., *Charge-Off and Delinquency Rates on Loans and Leases at Commercial. https://www.federalreserve.gov/releases/chargeoff/default.htm* (last updated Nov. 22, 2022).

[164] This analysis assumes each issuer sets late fees for all their credit card products using only the safe harbor in § 1026.52(b)(1)(ii) or only the cost analysis provisions in § 1026.52(b)(1)(i). In practice, some issuers may use the safe harbor amount for some credit card products and the cost analysis provisions for others, which could lead the revenue impact of the proposed safe harbor amount to be different among issuers in the Y–14.

[165] In its latest annual report on credit card profitability to Congress, the Board found that ''[c]redit card earnings have almost always been higher than returns on all bank activities, and earnings patterns for 2021 were consistent with historical experience.'' Bd. of Governors. of the Fed. Rsrv. Sys., *Profitability of Credit Card Operations of Depository Institutions* (July 2022), at 7, *https://www.federalreserve.gov/publications/files/ccprofit2022.pdf.* The Board also found that the quarterly average return on credit card assets (ROA) using Y–14 data was stable at around 1.10 percent during the 2014–19 period before the pandemic, while the quarterly average credit card bank ROA using Call Report data was 1.03 percent. These measures dipped below zero early in the COVID–19 pandemic but rebounded to around 2 percent by 2021 for the Y–14. Late and other fees ranged from 7 percent to 28 percent of ROA during the 2014–2021 period. Robert Adams *et al., Credit Card*

Continued

indicates that the market will see few exits and no fewer entries. The two pieces of evidence most relevant to set the Bureau's expectations for offset are an academic publication and a Bureau report that includes an analysis of the effects of the fee changes resulting from implementing the CARD Act.[166] The Bureau reads this evidence as tentatively suggesting less than full offset, if any.

To illustrate an upper bound of the potential offsetting effect, consider the increase in interest income required to offset lost late fee income.[167] As discussed above, over the last 12 months, limiting late fees to $8 could have reduced the late fee revenue of Y–14 issuers with cost data by 72.3 percent, or $4.11 billion, even if some issuers use the cost analysis provisions to determine the amount of the late fee as discussed above. Total interest income at the issuers with collection costs in the Y–14 data was $71.4 billion over the same 12 months, so offsetting the lost fee revenue would require increasing interest revenue by $4.11 billion, or 5.8 percent. This change would be less than 2 percentage points on an APR that is below 34.7 percent.[168]

Economic theory also suggests the potential for a pass-through of greater than what would be required to offset lost fee revenue, if the credit card market is sufficiently adversely selected on APRs.[169] Intuitively, if the offsetting change in APRs leads low-risk consumers to leave the pool of credit card borrowers to a greater degree than it leads higher-risk consumers to leave the pool of credit card borrowers, then the resulting change in average credit risk could lead to further increases in APRs in market equilibrium. However, the Bureau notes that existing evidence on adverse selection in the credit card market suggests that adverse selection is unlikely to be this severe. Most notably, a research paper studying the effects of the safe-harbor fee levels in the Board's 2010 Final Rule finds that this high pass-through scenario can be rejected with high statistical confidence.[170] Complementary academic research finds less than full pass-through of other shocks to credit card lenders' costs,[171] and that the effects of adverse selection after the Board's 2010 Final Rule took effect were generally modest.[172] Overall, the Bureau concludes that concerns about adverse selection are unlikely to alter the above analysis's upper bound of less than 2 percentage points change in APRs below 34.7 percent.

This upper bound on a full interest offset, at least on one that reprices all accounts by the same percentage points to recover all lost late fee revenue with higher finance charges, suggests that any losses to credit access would be limited. However, the Bureau acknowledges that late fee revenue has been concentrated on certain market segments, suggesting that any price responses are also likely to be focused in those segments. In particular, interest rates or other charges of subprime credit cards might increase more than for other cards, and some consumers might find these cards too expensive due to higher interest rate offers. Even if this were to happen, it would not result from a higher average consumer cost of using credit cards but from greater transparency about the cards' actual expected cost of ownership.[173] Lost credit to consumers consciously declining offers because of the card's actual price becoming more salient would constitute no harm to them.

On the other hand, it is also possible that some consumers' access to credit could fall if issuers could adequately offset lost fee revenue expected from them only by increasing APRs to a point at which a particular card is not viable, for example, because the APR exceeds applicable legal limits. The Bureau seeks data and other information to help assess the likelihood of offsetting price changes and any related changes in credit access.

Any offsetting changes, like the decrease in late fees, would affect different consumers differently depending, for example, on how often they pay late and whether they carry a balance. Cardholders who never pay late will not benefit from the reduction in late fees and could pay more for their account if maintenance fees in their market segment rise in response—or if interest rates increase in response and these on-time cardholders also carry a balance. Frequent late payers are likely to benefit monetarily from reduced late fees, even if higher interest rates or maintenance fees offset some of the benefits. Cardholders who do not regularly carry a balance but occasionally miss a payment would benefit from the proposed changes so long as any increase in the cost of finance charges (including the result of late payments that eliminate their grace period) is smaller than the drop in fees.[174] Cardholders who carry a balance but rarely miss a payment are less likely to benefit on net.

Though the late fee changes most directly benefit those who make late payments, the Bureau notes that late fees are collected only from those delinquent cardholders who eventually pay at least the fee amount. Some collection costs and charge-off losses are caused by delinquent customers who do not recover before account closure and charge-off. These cardholders would not receive any of the benefits of the lower fees they are nominally assessed but do not pay in practice.[175] Using a subsample of Y–14 account data, the Bureau estimated that around 14 percent of late fees are assessed to accounts that never make another payment.

The Bureau understands that many American households use more than one credit card. Some of the cross-subsidies from card to card could remain within the household, and thus the range of household-wise gains and losses will be less than the gains and losses on separate credit card accounts: Some consumers will save in late fees on one of their cards but might experience offsetting terms on another

Profitability, FEDS Notes, Bd. of Governors. of the Fed. Rsrv. Sys., (Sept. 9, 2022), *https://doi.org/10.17016/2380-7172.3100.*

[166] Sumit Agarwal *et al., Regulating Consumer Financial Products: Evidence from Credit Cards,* 130 Quarterly J. of Econ., at 111–164 (February 2015), *https://doi.org/10.1093/qje/qju037;* 2013 Report, at 20–37.

[167] The available evidence suggests that issuers compete fiercely with more salient (though not necessarily transparent) rewards and, to a lesser extent, annual or account maintenance fees. (Other types of penalty fees, such as over-the-limit or returned check fees, are subject to existing CARD Act limits, and in any case apply only in particular circumstances and generate relatively little revenue.) This leads the Bureau to estimate an interest-only response as the full-offset benchmark. *See,* for instance, the academic research cited in footnote 45, or Figure 44 of the 2013 Report, at 82.

[168] For data related to total interest income in the Y–14 collection, *see* Revenue-Cost Report, at 6–9.

[169] Neale Mahoney & E. Glen Weyl, *Imperfect Competition in Selection Markets,* 99 Review of Economics and Statistics, MIT Press at 637–51(Oct. 1, 2017), *https://doi.org/10.1162/REST_a_00661.*

[170] Agarwal *et al.,* supra note 166.

[171] Tal Gross *et al., The Economic Consequences of Bankruptcy Reform,* 111 (7) American Economic Review, 2309–41 (July 2021), *https://www.aeaweb.org/articles?id=10.1257/aer.20191311.*

[172] Scott Thomas Nelson, *Essays on Household Finance and Credit Market Regulation,* Ph.D. Thesis, Massachusetts Institute of Technology, Department of Economics (2018), *https://dspace.mit.edu/handle/1721.1/118066.*

[173] As discussed below, however, the cost of ownership of cards could go up for some consumers and down for others, depending on their usage patterns.

[174] If a consumer pays late and loses the grace period, the consumer will pay interest on the balances. The analysis here focuses on whether the increased interest as a result of the increase in the rate to offset the reduction in late fee revenue is greater than the reduction in the late fee.

[175] This holds as long as the additional charged-off balance due to higher late fees does not change the amount the holder of the debt can eventually collect after charge off, including through litigation or wage garnishment. Even defaulting consumers would benefit otherwise.

where they are not late. The Bureau has not quantified the magnitude of this effect as late fees are not observed in available household-level data, and available account-level data do not link cards of the same holder or their household.

As mentioned above in part II.E, consumers may not fully consider late fees when shopping for a credit card. To the extent this is true, the actual cost of using a credit card will be greater than consumers' expected cost and reducing late fees will reduce the difference between the two. Whether or not changes to other prices offset a reduction in late fee revenue, consumers may benefit if, when choosing a credit card, they have a more accurate view of the expected total costs of using the card. To the extent that some consumers become better informed about the terms of credit cards, issuers may respond by offering improved terms, which could benefit even consumers who do not shop around. In addition, consumers might benefit or incur costs from further repricing and restructuring other financial products cross-marketed by credit card issuers and their holding companies. The Bureau is not aware of data that could help quantify such effects.

Recent results in psychology and economics highlight some patterns likely to affect consumer welfare in the credit card market, depending on how accurately cardholders forecast the likelihood that they will incur late fees. A seminal theoretical study [176] identified and coined the term for naïveté-based discrimination, in which firms recognize that some potential consumers are prone to systematic mistakes. If this is indeed a feature of credit card markets, ''naïve'' and ''sophisticated'' consumers, using the terminology of this scholarship, could be affected by the proposed regulation differently,. Naïve consumers may mistakenly expect high fees to be unimportant to them, as they are overly optimistic about not missing a payment. Such consumers would benefit from the proposed changes to late fee amounts, which lower the cost of this mistake. Sophisticated consumers, inasmuch they would have been cross-subsidized by naïve customers' costly mistakes, may pay higher maintenance fees or interest or collect fewer rewards if the issuer offsets the revenue lost to naïve consumers. The Bureau considers that to the extent there are offsetting changes to card terms, some of these changes are likely but has not quantified their magnitude.

The Bureau acknowledges the possibility that consumers who were more likely to pay attention to late fees than to other consequences of paying late, like interest charges, penalty rates, credit reporting, and the loss of a grace period, might be harmed in the short run if a reduction in late fees makes it more likely that they mistakenly miss payments. The Bureau has not quantified this effect but notes that reducing late fees may increase issuer incentives to find other approaches to make the consequences of late payment salient to consumers, including reminders or warnings.

Other results in psychology and economics might suggest that the proposal might pose some harm to consumers for whom high late fees serve as a valuable commitment device without which they would have a harder time responsibly managing their credit card debt.[177] To the extent that late fees benefit some consumers in this way, any harm to such consumers may be mitigated to the extent that the proposal creates additional incentives for issuers to emphasize reminders, automatic payment, and other mechanisms that maintain similar or better payment behavior, as discussed below.

The proposal may benefit consumers indirectly by making late payments less profitable to issuers and thereby increasing issuer incentives to take steps that will encourage on-time payment. Consumers may benefit from issuer practices such as more effective reminders or convenient payment options. If issuers bear no net cost from late payments, or even profit from them, then they have no incentive to take even inexpensive steps to reduce the incidence of late payments. Even with the proposed changes, issuers will not have incentives to take all steps they could that would efficiently reduce the incidence of late payment since the late fees they do charge mean they do not bear the full cost of late payments. Nonetheless, by limiting issuer revenue from violations that exceeds cost, this proposal changes issuer incentives in a way that benefits consumers.

Potential Benefits and Costs to Covered Persons of the Proposed Late Fee Safe Harbor Changes

Because the proposal would significantly reduce the aggregate value of late fees paid by consumers, the proposal would significantly reduce late fee revenue for issuers. As discussed below, issuers can mitigate these costs of the proposal to some extent by taking other measures (*e.g.,* increasing interest rates or changing rewards), and the reduction in late fees could affect consumer choices or market competition in ways that may create benefits or costs to issuers.

As discussed above concerning benefits to consumers, the direct effects of reducing late fees generally to the safe harbor amount of $8 could be, based on recent Y–14 data, to reduce issuer late fee revenue by 72.3 percent.

Issuer costs and revenue would also be affected by changes in consumer behavior in response to the reduced late fee amounts. In particular, lower late fees could make consumers more likely to make late payments. As discussed above in the section-by-section analysis of § 1026.52(b)(1)(ii) in part V, the Bureau expects that a $8 late fee would still have a deterrent effect on late payments, although that effect may be lessened by the proposed change to some extent, and other factors may be more relevant (or may become more relevant) to creating deterrence. The Bureau also expects that any additional late payments due to the reduced late fee safe harbor amount would generate both additional fee income and additional collection costs relative to an outcome with lower fee amounts but no additional incidents. Even if more consumers pay late because of the decreased late fee amount, the cost of collecting any such additional late payments is unlikely to be greater, per incident, than the cost of collecting late payments under the existing safe harbor. Therefore, the Bureau expects that collection costs to card issuers would not increase by more than fee income derived from any additional late payments.

Besides any impact on collection costs, additional missed payments could result in additional delinquencies and ultimately increase credit losses. The Bureau is not aware of evidence showing that higher late fees will prevent consumers from eventually defaulting on their accounts.[178]

[176] Paul Heidhues & Botond Köszegi, *Naïveté-Based Discrimination,* 132 (2) The Quarterly Journal of Economics, at 1019–1054 (May 2017), *https://doi.org/10.1093/qje/qjw042.*

[177] For a discussion of commitment devices most relevant to this context, *see* section 10.2 of John Beshears *et al., Behavioral household finance,* Handbook of Behavioral Economics: Applications and Foundations, at 177–276 (2018), *https://doi.org/10.1016/bs.hesbe.2018.07.004.*

[178] For some consumers, a high late fee may contribute to default by increasing their overall debt burden and making it more difficult to recover from delinquency. For example, the 2022 paper by

Continued

However, the Bureau notes that issuers can take other steps to help reduce the likelihood of consumers missing payments, which would mitigate potential costs of the proposal from increased delinquencies. For example, issuers could increase investments in payment reminders or automatic payments or provide lower-friction methods of payment or rewards for paying on time.[179] Issuers could also increase minimum payment amounts or adjust credit limits to reduce credit risk associated with consumers who make late payments.

As discussed above, issuers could also increase other prices in a way that would offset revenue lost from reduced late fees. In general, issuers will set the terms of credit cards to maximize profits, and it is not clear that limiting late fees will directly affect the profit-maximizing finance charge or account maintenance fee, for example. However, a reduction in late fee revenue could cause issuers to change other terms if the lost late fee revenue reduced the profitability of issuing credit cards to the point at which issuers are faced with a choice between raising new revenue by changing other card terms or exiting the market. As discussed above, such offsetting price increases are most likely where markets are most competitive since any reduction in revenue is likely to drive some firms out of the market, limiting supply and driving prices up for consumers. As the recent profitability of consumer credit card businesses suggests that these markets are imperfectly competitive, the Bureau expects the market to see few exits and no change in entries.[180]

Issuers' revenue loss from the proposal could be mitigated by the ability to use the cost analysis provisions in § 1026.52(b)(1)(i) rather than setting late fees at the safe harbor amount. Any issuer with costs greater than $8 per late payment would be able to set a higher fee using the cost analysis provisions, although doing so would likely involve some expense to conduct the relevant analysis, ensure that it complies with the existing rule's requirements and potential changes from the proposed rule, and ensure that the relevant data and analysis are documented in a way that would permit the issuer to demonstrate compliance to regulators.

Potential Benefits and Costs to Consumers and Covered Persons of Lowering the Limitation on Late Fees to 25 Percent of the Minimum Payment Due

The Bureau proposes to amend § 1026.52(b)(2)(i)(A) to limit the dollar amount associated with a late payment to 25 percent of the required minimum periodic payment due immediately before the assessment of the late fee. Currently, late fee amounts must not exceed 100 percent of the required payment.

Consumers with minimum payments smaller than four times their card's late fee amount would benefit from the proposed change by saving the difference between the regular late fee amount and 25 percent of their minimum payment. For issuers setting fees at the $8 safe harbor amount, this includes cardholders with minimum payments below $32. For a twelve-month period from October 2021 to September 2022 in the Y–14 data collection, 15.9 percent of all account-months had minimum payments below $32, or 7.7 percent of account-months for which payments were late.[181] Savings for these accounts at the Y–14 issuers would have been $44 million between September 2021 and August 2022, relative to where late fees are limited to $8 but can be up to 100 percent of the minimum payment due. Qualitatively, the benefits to consumers from this proposed limitation would be affected by the same factors described above in connection with the consumer benefits of the lower safe harbor amount, with the benefits concentrated among consumers with lower balances who are generally more likely to have low minimum payment amounts.

Similarly, this provision would decrease revenue to covered persons to the extent that they would otherwise charge a late fee greater than 25 percent of the minimum payment due. As described above, applying this limitation to 12 months of Y–14 data suggests lost revenue of $44 million at the Y–14 issuers relative to the case in which late fees are limited to $8 but can be up to 100 percent of the minimum payment due.

These benefits to consumers and corresponding costs to issuers will be higher for issuers that determine the late fee amount using the cost analysis provisions in § 1026.52(b)(1)(i) and impose late fee amounts higher than the safe harbor amount.

The calculations of reduced late fees above assume no change to minimum payment amounts. The Bureau expects these benefits to consumers and costs to issuers to decrease if issuers increase minimum payment amounts, either in response to the proposed rule, as a result of market developments, or for any other reason.

The Bureau understands that late fee amounts would be more varied under this proposal than without it, as this limit on the amount of the late fee that could be charged would apply more often than under the current limit of 100 percent of the minimum payment. On the other hand, to the extent issuers take advantage of the proposed safe harbor, very few accounts would face a late fee other than $8 due to the 25 percent limitation. In principle, if late fee amounts are less predictable, consumers could find it more challenging to plan, increasing the likelihood of mistakes. The Bureau does not expect such effects to be significant, particularly given that this limitation would affect late fee amounts only when balances and minimum payment amounts are low.

Potential Benefits and Costs to Consumers and Covered Persons From Not Applying the Annual Adjustments to the Proposed $8 Safe Harbor Amount for Late Fees

The Bureau proposes to not apply the annual adjustments based on the level of the CPI to the proposed $8 safe harbor amount for late fees. Instead, the Bureau would continue to monitor the market and adjust the safe harbor amount ad hoc to reflect changes to pre-charge-off collection costs and other statutory factors. The discussion below considers the effects of this change relative to a baseline in which the proposed safe harbor amount is adjusted based on the level of the CPI; however, the effects

Grodzicki *et al.,* described above in the section-by-section analysis of § 1026.52(b)(1)(ii) in part V, with all the caveats noted there, found that a decrease in late fees increases borrowing for prime borrowers but triggers repayment for subprime cardholders. This paper explained that this latter effect on subprime cardholders might result from the lower late fee amount lessening the need for subprime cardholders to focus on avoiding late fees and instead allowing some subprime cardholders to start to pay more attention to the high cost of their revolving debt.

[179] A joint comment submitted by several industry trade groups stated that issuers promote on-time payments through a variety of means in addition to late fees, including multiple payment reminders sent via mail, email, or text notification depending on consumer preference. These commenters further stated that one issuer reported that as of five months after rollout of its new alert system, the issuer's gross monthly late fees were 20 percent lower and the late fee incidence rate per balance had fallen by nearly 25 percent. Similarly, a large credit union trade group noted that some credit unions already have systems in place or are currently contracting with third-party vendors to offer their members convenient reminders for upcoming payment due dates via text message and email.

[180] *See* supra note 165.

[181] For more information on the distribution of minimum payments for late accounts in the Y–14 data, *see* Figure 3 and related discussion in the section-by-section analysis of § 1026.52(b)(2)(i) in part V.

would be qualitatively similar at other safe harbor amounts.

The benefits and costs of this proposal to consumers and covered persons depend on whether future adjustments by the Bureau would be greater or less than the changes that would result from the CPI adjustments that are currently used. As discussed in the section-by-section analysis of § 1026.52(b)(1)(ii)(D) in part V and illustrated in Figure 2, trends in collection costs and the CPI do not appear to be closely related. If the safe harbor amount were to fall or to grow less rapidly through the Bureau's future ad hoc adjustments than the current CPI adjustments, then consumers would benefit from the reduced real cost of late fees, and issuers using the safe harbor amount would see lower revenue. Conversely, suppose the safe harbor amount was adjusted in the future through ad hoc adjustments by more than it would be through the current CPI adjustments. In that case, consumers could face costs from the proposed change, and issuers using the safe harbor amount would see increased revenue.

Under the proposal, it is likely that the safe harbor amount would be adjusted less frequently than under the current rule. Some consumers would benefit from the transparency and administrative ease of late fee amounts changing less often. These would be the cardholders of issuers who do not set the late fee using the cost analysis provisions in § 1026.52(b)(1)(i), because those issuers would still collect more late fee revenue under the safe harbor than their pre-charge-off collection costs. The Bureau also notes that even under CPI-based adjustments, the lower $8 safe harbor amount combined with the requirement that adjustments are rounded to the closest $1 means that the safe harbor amount would likely change less frequently than recently.

To the extent that some issuers experience increases in collection costs that would have been addressed through CPI-based adjustments, these issuers would retain the option under the proposal to use the cost analysis provisions in § 1026.52(b)(1)(i) and thus recover their higher costs with higher late fee amounts. Their cardholders would still benefit from this provision if the cost increase was slower than the rise in the CPI. If it was faster, the consumer would have seen the same fee rise from this issuer determining the late fee using the cost analysis provisions in § 1026.52(b)(1)(i), irrespective of this provision.

Issuers with decreasing costs would lose out on a mechanical increase in their revenue above cost to reflect CPI adjustments unless the safe harbor amount is otherwise adjusted. As shown in Figure 2 above in part V, recent collection cost totals from the Y–14 portfolio data suggest that some issuers have been experiencing decreasing nominal collection costs even in the inflationary period of 2021–2022.

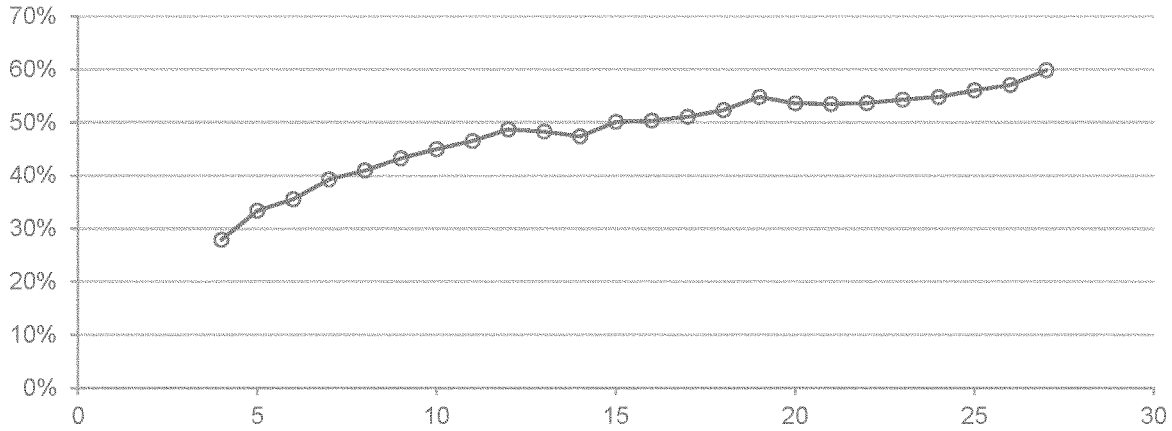
Potential Benefits and Costs to Consumers and Covered Persons of a Courtesy Period Which Would Prohibit Late Fees Imposed Within 15 Calendar Days After the Payment Due Date

In part V, the Bureau solicits comment on whether § 1026.52(b)(2) should be amended to provide for a courtesy period that would prohibit late fees imposed within 15 calendar days after the payment due date. Such a courtesy period could apply only to late fees assessed if the card issuer is using the late fee safe harbor amount or, alternatively, could be applicable generally (regardless of whether the card issuer assesses late fees according to the safe harbor amount set forth in § 1026.52(b)(1)(ii) or the cost analysis provisions in § 1026.52(b)(1)(i)).

A 15-day courtesy period would most directly benefit consumers who will pay late within 15 days of the original due date. Benefits and costs to consumers generally and to covered persons will depend on market responses to offset the lost revenue.

The Bureau does not have data that directly shows how often payments are made within 15 calendar days after the due date. However, it has conducted its own analysis to estimate what fraction of missed payments is made within 15 calendar days of the original due date. In lieu of direct evidence on how many days after the due date late payments are made, this work used the Y–14 account data to count what fraction of accounts charged late fees were current by the end of a calendar month, separately by how far the due date was from the end of the month. Among accounts that paid late fees, those with due dates early in the month are more likely to be current at the end of the month. The higher share of delinquent accounts becoming current the earlier the due date was within a month partly reflects the increasing share of payments the longer time passes after the due date. The Bureau acknowledges that other factors might differ between accounts with due dates closer to the end of the month rather than earlier due dates, and those factors might confound repayment behavior. However, the monotonically increasing share of current accounts in the number of days between the due date and the month's end makes the Bureau reasonably confident in this approach approximating the survival curve of pending payments, or the cumulative distribution function of payment days after due. Figure 4 plots the aforementioned shares for due dates 4 to 27 days before the end of the calendar month on Y–14 data from October 2021 to September 2022, where a monotonic relationship might most closely approximate the survival curve of late payments being made past due.

Figure 4: Share of Late Accounts Current at End of Months by How Many Days Passed



As shown in Figure 4, this analysis concluded that in this recent 12-month period for accounts with payments due 15 days before the end of the month, about half of accounts with missed payments had become current by the end of the month, suggesting that about half of accounts with late payments become current within 15 days. The Bureau solicits comment on more direct estimates of the share of missed payments subsequently made within 15 calendar days of the original due date.

Introducing a 15-day courtesy period would likely lead to an increase in late payments, at least an increase in those made within 15 days of the due date. This would benefit some consumers directly and indirectly by permitting additional flexibility in their budget. For example, paying a few days later might enable some consumers to avoid borrowing from another source in order to make a timely payment, or might simply permit them to make the payment at a time more convenient to them. On the other hand, some consumers might be harmed by taking advantage of a courtesy period if they do not fully account for other consequences of a late payment, which typically include increased finance charges and a two-month loss of the grace period. An increase in late payments could also increase collection costs for issuers, although those costs may be low for accounts that become current shortly after the due date.

Even consumers who genuinely save some hassle, mental or pecuniary cost by delaying payment by less than 15 calendar days might suffer harm in the long run if this leads to confusion about effective due dates on their accounts or erodes habits of prudent money management. However, the 15-day courtesy period would provide a considerable net benefit to consumers facing temporary financial distress around their original due date.

A 15-day courtesy period would, to some degree, replace existing informal, ad hoc, and inconsistent waiver and reversal policies of many issuers, making these policies more transparent and uniform. This would benefit consumers who do not ask currently for their late fees to be reversed and would potentially cost consumers who now enjoy occasional late payments at no cost, as they might bear some of the lost fee revenue offset.

Introducing a 15-day courtesy period could affect the late fees that issuers charge based on the cost analysis provisions in § 1026.52(b)(1)(i). With the courtesy period, a smaller number of delinquencies—the more serious ones—would need to generate enough late fee revenue to cover pre-charge-off collection costs. This would generally mean issuers using cost analysis provisions in § 1026.52(b)(1)(i) would charge higher late fees, increasing the relative burden on the consumers more than 15 calendar days late on a payment. The absolute burden on a consumer rises only if their issuer's collection costs are high enough that cost analysis provisions in § 1026.52(b)(1)(i) yields a late fee higher than the safe harbor with the courtesy period in place. At issuers with costs low enough that the $8 safe harbor amount covers pre-charge-off collection costs even when collected only on accounts more than 15 calendar days late, consumers who pay within the courtesy period benefit, and issuer revenue would fall without raising the absolute burden on longer-term delinquent cardholders.

As highlighted in part V, if the 15-day courtesy period only applies to the safe harbor, it would provide an additional incentive for issuers to use the cost analysis provisions in § 1026.52(b)(1)(i) to determine the late fee amount. Issuers with collection costs in the $4–8 range would have the incentive to set late fees using the cost analysis provisions in § 1026.52(b)(1)(i) and charge the late fee to every late payer without regard to a courtesy period, even if their costs are somewhat less than the safe harbor amount. This could limit the number of consumers who benefit from a courtesy period by not paying a late fee compared to applying the courtesy period when the cost analysis provisions apply. However, it could also have the effect of reducing late fees for some consumers who do not take advantage of the courtesy period and whose issuers, without a courtesy period, would have set late fees at the safe harbor amount.

Potential Benefits and Costs to Consumers and Covered Persons of the Potential Alternative To Eliminate the Safe Harbor

As discussed in part V, the Bureau solicits comment on the alternative of proposing to eliminate for late fees the safe harbor provisions in § 1026.52(b)(1)(ii) altogether, in which case card issuers could only impose late fees in amounts that issuers determine to be reasonable and proportional under the cost analysis provisions in § 1026.52(b)(1)(i).

Under the alternative, each issuer would determine its own late fee amount based on its own pre-charge-off

collection costs. This alternative would likely result in lower late fees for many issuers than would the $8 safe harbor. As discussed in part V and above in this section, the data available to the Bureau suggest that many issuers have pre-charge-off collection costs that are lower than the proposed $8 safe harbor amount. These issuers' cardholders would see even larger direct benefits than under the proposal, with issuers keeping none of their remaining fee revenue above cost.

From the Y–14 data, the Bureau estimates that the total savings for late fee-paying cardholders could have been as high as $499 million in the September 2021–August 2022 period, comparing late fees calculated on a cost basis to the proposal's $8 safe harbor amount (with some issuers in the Y–14 data using the cost analysis provisions to determine the late fee, as discussed above). As discussed above concerning the proposed safe harbor amount, the actual benefits to consumers, and revenue loss for issuers, would depend on several factors, including how consumers respond to lower late fee amounts and how issuers offset lost revenue. As discussed above, issuers might respond to limitations on late fees by increasing revenue collected through other terms such as interest rates or account maintenance fees, and to the extent that this alternative would lower late fees by more than the proposed safe harbor it could mean a correspondingly greater increase in the interest rate or other charges as a result of such changes. As with the estimates discussed above, the Y–14 data reflect large issuers, and the Bureau does not have equivalent data on smaller issuers' pre-charge-off collection costs but has no reason to think the benefits and costs to smaller issuers or their cardholders would be qualitatively different.

Besides the effect on fee revenue, eliminating the safe harbor would impose costs on issuers by eliminating the administrative simplicity that comes from a bright-line rule. Each issuer that charges a late fee would incur costs to conduct an analysis of pre-charge-off costs and to maintain records necessary to demonstrate that their late fees are reasonable and proportional under the cost analysis provisions.

Eliminating the safe harbor would likely result in greater variation of late fees and more uncertainty about year-to-year revisions, which could diminish consumer understanding and complicate shopping. However, to the extent that cardholders do compare late fees when they choose which credit card accounts to open, charge, or repay, at-cost late fee amounts would create some market pressure on issuers to lower costs by increasing efficiency. This welfare gain could be split between consumers and covered persons.

Potential Benefits and Costs to Consumers and Covered Persons of Changes to the Safe Harbor Provision With Respect to Other Penalty Fees

In part V, the Bureau solicits comment on whether the changes that are the same or similar to those proposed for late fees should be applied to other penalty fees, such as over-the-limit fees, returned-payment fees, and declined access check fees. In particular, the Bureau solicits comment on whether the proposed safe harbor provisions should apply to other penalty fees and whether, alternatively, if the Bureau were to eliminate the safe harbor provisions in § 1026.52(b)(1)(ii) for late fees, the Bureau should also eliminate the safe harbor for other penalty fees.

The data available to the Bureau indicate that these other penalty fees are significantly less common than late fees, generating fee revenue that is less than 1 percent of aggregate late fee revenue. This implies that the effects on both consumers and issuers of any changes to these fees would be much smaller in aggregate than the effects of changes to the late fee provisions.

Whether adjustments to the safe harbor provision for these other penalty fees would significantly lower the fees depends on the costs associated with the incidents giving rise to these fees. The Bureau does not have data available with which it can estimate these costs. The Bureau requests data on the costs associated with the violations giving rise to these fees that could be used to better understand what penalty fee amounts issuers would be likely to set based on a cost analysis.

Assuming that the penalty fee amounts were reduced in response to a change in the safe harbor provision, the benefits would likely be greatest for consumers most likely to violate these terms of their card agreement—for example, consumers who are facing tight budgets and most likely to make a charge that causes their balance to exceed their limit or to experience a returned payment. For issuers, the cost of such a change would include lost fee revenue as well as potential costs from additional violations. Issuers could also respond by taking other steps to discourage additional violations, such as further limiting the extent to which they approve above-the-limit transactions. Such steps would involve additional costs but would mitigate any costs from additional violations.

E. Potential Specific Impacts of the Proposed Rule on Depository Institutions and Credit Unions With $10 Billion or Less in Total Assets, as Described in Section 1026

As with other issuers, depository institutions and credit unions with $10 billion or less in total assets would generally lose fee revenue as a result of the proposed rule. The Bureau has no reason to believe that depository institutions and credit unions with $10 billion or less in total assets would experience effects qualitatively different from those discussed above in part VII.D. However, with respect to pre-charge-off collection costs, the Bureau recognizes that most of its analysis is based on data from the largest issuers and may not be representative of smaller issuers, who do not report to the Y–14 collection. Smaller issuers may have pre-charge-off collection costs that are higher on average than those of the issuers represented in the Y–14 data, which could mean that smaller issuers are more likely to set late fees using the cost analysis provisions in § 1026.52(b)(1)(i) rather than the safe harbor amount. On the other hand, the Bureau expects that the proposed $8 amount would have a proportionately smaller negative impact on smaller issuers' late fee income due to smaller issuers' having lower late fee amounts. The Bureau collects card agreements from many more smaller issuers than issuers for which the Bureau has financial data. Based on a review of those agreements from over 500 credit card issuers, each outside the top 20 by outstanding credit card loans and having more than 10,000 credit card accounts, the Bureau established that smaller issuers charged smaller late fees in 2020 than larger issuers, with a modal maximum disclosed late fee for smaller issuers of $25.[182] In contrast, in 2020, the average late fee for issuers in the Y–14+ data was $31. The Bureau specifically solicits comment on this analysis and the potential impact on smaller issuers of the proposed $8 safe harbor amount and the other provisions of this proposed rule, including data or evidence related to smaller issuers' costs of late payments.

F. Potential Specific Impacts of the Proposed Rule on Consumer Access to Credit and on Consumers in Rural Areas

The Bureau is concerned about the geographic concentration of current late fees and that areas with higher incidence of late fees tend to also be areas with higher numbers of consumers

[182] Late Fee Report, at 14.

from disadvantaged groups, as summarized in part II.F above. However, the Bureau has not analyzed the incidence of late fees in rural areas specifically. Bureau research has found that consumers in rural areas are somewhat less likely than other Americans to have a credit card, and not significantly more likely than other Americans to have a credit card delinquency.[183] These findings suggest that the effects of the rule on late fees paid by rural consumers may generally be similar to those of other Americans.

On the other hand, consumers in rural areas have lower median household income, and lower median credit card balances, than consumers in non-rural areas.[184] Though high-income Americans have more credit cards, low-income areas have more late payments per card. This means it is unclear whether savings from the proposed rule would be larger or smaller for consumers in rural areas; however, reductions in fee amounts that are similar in dollar terms may be more meaningful on average for consumers with lower incomes, meaning that they may be more meaningful on average for consumers in rural areas.

As discussed above in part VII.D., the Bureau acknowledges that late fee revenue has been concentrated in certain market segments, suggesting that any price responses are also likely to be focused in those segments. In particular, interest rates or other terms of subprime or regionally prevalent credit cards may increase more than for other cards, and it is possible that some consumers might find these cards too expensive due to higher interest rate offers. Even if this were to happen, it would not result from a higher expected consumer cost of using credit cards but from greater transparency about the cards' actual anticipated cost of ownership. Lost credit to consumers consciously declining offers with the actual price fully salient would constitute no harm to them.

VIII. Regulatory Flexibility Act Analysis

The Regulatory Flexibility Act (RFA) generally requires an agency to conduct an initial regulatory flexibility analysis (IRFA) and a final regulatory flexibility analysis of any rule subject to notice-and-comment rulemaking requirements unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities (SISNOSE).[185] The Bureau is also subject to specific additional procedures under the RFA involving convening a panel to consult with small business representatives before proposing a rule for which an IRFA is required.[186] As the below analysis shows, an IRFA is not required for this proposal because the proposal, if adopted, would not have a SISNOSE.

Small institutions, for the purposes of the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996, are defined by the Small Business Administration. Effective December 19, 2022, depository institutions with less than $850 million in total assets are determined to be small for the period used in the subsequent analysis.[187]

The proposed rule would affect small entities that issue credit cards most directly by reducing late fee revenue from credit cards. To assess whether the proposed rule would have a significant economic effect on small entities, the Bureau considers the significance of credit card late fee revenue as a share of the total revenue of affected small entities. As discussed in part VII, the Bureau does not have data with which to precisely estimate the effect of the proposed rule on late fee revenue. The Bureau analyzes available information on total late fee revenue below because the Bureau considers total late fee revenue to be an upper bound on potential impacts of the proposal on small entities.

The Bureau estimates that there are approximately 3,780 small banks, of which approximately 498 report outstanding credit card debt on their balance sheets.[188] In addition, the Bureau estimates that there are approximately 4,586 small credit unions, of which approximately 2,785 report credit card assets.[189] Detailed information about sources of credit card revenue is not available for most small banks. However, FFIEC Call Reports include a measure of outstanding credit card debt held as assets. Revenue for banks is reported on the FFIEC Call Reports as net-interest income plus non-interest income. Interest income is partially reported by product type. For example, all banks are required to report ''all interest, fees, and similar charges levied against or associated with all extensions of credit to individuals for household, family, or other personal expenditures arising from credit cards (in domestic offices).'' [190] The Bureau considers this interest and fee income on outstanding credit card balances as a proxy for credit card revenue.

Credit cards represent a small fraction of both assets and revenue for small banks. In terms of assets, only 13 small banks reported credit card assets at 1 percent of total assets or higher. Among the remaining small banks with asset share below 1 percent, 29 had a credit card revenue share above 1 percent of total revenue. While the Bureau does not have a precise estimate of the share of total bank credit card revenue generated by late fees, it expects this share to be well below 20 percent of total credit card revenue at most banks.[191] Thus, for the vast majority of small banks, even a large reduction in credit card late fee revenue would represent well below 1 percent of bank revenue and, therefore, would not have a significant economic impact.

The Bureau does not have equivalent data on credit card revenue for small credit unions because credit unions are not required to separately report income from their credit card business in the NCUA Call Reports. However, NCUA Call Reports provide information on credit card assets as a share of total assets. Based on that information, 44.9 percent of small credit unions have more than 1 percent of their assets in credit cards.

To obtain a rough estimate of credit card revenue shares at small credit unions, the Bureau extrapolated using the relationship between credit card revenue share and credit card asset share in bank call report data. Based on bank data, the Bureau estimated that the credit card revenue share averaged between 68 percent and 102 percent of the credit card asset share for small

[183] Bureau of Consumer Fin. Prot., *Consumer Finances in Rural Appalachia,* at 12 (Sept. 1, 2022) (Appalachia Report), *https://www.consumerfinance.gov/data-research/research-reports/consumer-finances-in-rural-appalachia/.*

[184] *Id.* at 8, 12.

[185] 5 U.S.C. 601 *et seq.*

[186] 5 U.S.C. 609.

[187] *See* Small Business Administration Table of Sizing Standards, *https://www.sba.gov/document/support--table-size-standards* (Dec. 19, 2022).

[188] These estimates and others for small banks are based on data from the quarterly Federal Financial Institutions Examination Council (FFIEC) Consolidated Reports of Condition and Income (FFIEC Call Reports), and refer to the fourth quarter of 2021, unless otherwise noted. Fed. Fin. Insts. Examination Council, Call Reports, *https://cdr.ffiec.gov/public/ManageFacsimiles.aspx* (last visited Dec. 14, 2022).

[189] These estimates and others for small credit unions are based on data from NCUA Call Reports, and refer to the fourth quarter of 2021, unless otherwise noted. Nat'l Credit Union Admin., *Call Report Quarterly Data, https://www.ncua.gov/analysis/credit-union-corporate-call-report-data/quarterly-data* (last visited Dec. 14, 2022).

[190] *See* the Board's Micro Data Reference Manual, B485, *https://www.federalreserve.gov/apps/mdrm/data-dictionary* (last visited Dec. 14, 2022).

[191] The Bureau has estimated that more than 10 percent of industry-wide fee and interest revenue from credit cards comes from late fees annually. Late Fee Report, at 14. The Bureau's analysis of card agreements in the same report suggested that small issuers charge smaller late fees per incident than large ones, suggesting that reliance on late fees by small banks may be less than the industry average.

banks in recent years.[192] The Bureau notes that the fact that credit card asset shares are so much higher at credit unions than at small banks means that extrapolation from small banks should be treated with caution.

Applying these estimates to credit card assets at small credit unions would imply that credit card revenue shares are also relatively small at small credit unions. Only 268 small credit unions (about 5.8 percent of small credit unions, or about 9.6 percent of those that issue credit cards) are estimated to have credit card revenue above 4 percent of total revenue. For the remaining credit unions with estimated credit card revenue at or below 4 percent of total revenue, the estimate that late fees generally make up well under 20 percent of credit card revenue means that late fees likely represent well below 0.8 percent (20 percent of 4 percent) of revenue for these credit unions. As with small banks, the small share of revenue coming from credit cards, together with the fact that late fees make up only a fraction of credit card revenue, implies that even a significant drop in late fee revenue would not have a significant economic impact for the large majority of small credit unions.

In response to the ANPR, one trade group commenter asserted that smaller creditors and community banks, particularly those that extend credit to consumers who are trying to build or repair their credit, have proportionately higher compliance costs and would face the most risk if the safe harbor was reduced or eliminated, limiting their ability to continue to offer credit products at the same terms. Several industry trade group commenters also asserted that because lowering the safe harbor would have a significant impact on small financial institutions, the Bureau must comply with the SBREFA by convening a SBREFA panel in any late fee rulemaking. However, these commenters did not provide specific data that leads the Bureau to doubt the conclusions from the analysis above. While it is possible that some small entities would experience a significant economic impact as a result of the proposed rule, the analysis shows that it would not be a substantial number of small entities.

Accordingly, the Director hereby certifies that this proposal, if adopted, would not have a significant economic impact on a substantial number of small entities. Thus, neither an IRFA nor a small business review panel is required for this proposal. The Bureau requests comment on the analysis above and requests any relevant data.

IX. Paperwork Reduction Act

The information collections contained within TILA and Regulation Z are approved under OMB Control Number 3170–0015. The current expiration date for this approval is March 31, 2023. The Bureau has determined that this proposed rule would not impose any new information collections or revise any existing recordkeeping, reporting, or disclosure requirements on covered entities or members of the public that would be collections of information requiring approval by the Office of Management and Budget under the Paperwork Reduction Act.[193]

List of Subjects in 12 CFR Part 1026

Advertising, Banks, Banking, Consumer protection, Credit, Credit unions, Mortgages, National banks, Reporting and recordkeeping requirements, Savings associations, Truth in lending.

Authority and Issuance

For the reasons set forth above, the Bureau proposes to amend Regulation Z, 12 CFR part 1026, as set forth below:

PART 1026—TRUTH IN LENDING (REGULATION Z)

■ 1. The authority citation for part 1026 continues to read as follows:

Authority: 12 U.S.C. 2601, 2603–2605, 2607, 2609, 2617, 3353, 5511, 5512, 5532, 5581; 15 U.S.C. 1601 *et seq.*

Subpart G—Special Rules Applicable to Credit Card Accounts and Open-End Credit Offered to College Students

■ 2. Section 1026.52 is amended by revising paragraphs (b)(1)(ii) and (b)(2)(i) to read as follows:

§ 1026.52 Limitation on fees.

* * * * *

(b) * * *

(1) * * *

(ii) *Safe harbors.* A card issuer may impose a fee for a late payment on an account if the dollar amount of the fee does not exceed $8. Other than a fee for a late payment, a card issuer may impose a fee for violating the terms or other requirements of an account if the dollar amount of the fee does not exceed, as applicable:

(A) $30;

(B) $41 if the card issuer previously imposed a fee pursuant to paragraph (b)(1)(ii)(A) of this section for a violation of the same type that occurred during the same billing cycle or one of the next six billing cycles; or

(C) Three percent of the delinquent balance on a charge card account that requires payment of outstanding balances in full at the end of each billing cycle if the card issuer has not received the required payment for two or more consecutive billing cycles, notwithstanding the limitation on the amount of a late payment fee in paragraph (b)(1)(ii) of this section.

(D) The amounts in paragraphs (b)(1)(ii)(A) and (B) of this section will be adjusted annually by the Bureau to reflect changes in the Consumer Price Index.

(2) * * *

(i) *Late payment fees that exceed 25 percent of the amount of the required minimum periodic payment or fees, other than late payment fees, that exceed dollar amount associated with violation—*

(A) *Generally.* A card issuer must not impose a fee for a late payment on a credit card account under an open-end (not home-secured) consumer credit plan that exceeds 25 percent of the amount of the required minimum periodic payment due immediately prior to assessment of the late payment fee. For fees other than a fee for a late payment, a card issuer must not impose a fee for violating the terms or other requirements of a credit card account described in this paragraph (A) that exceeds the dollar amount associated with the violation.

* * * * *

■ 3. In supplement I to part 1026:

■ a. Under Section 1026.7—Periodic Statement, revise 7(b)(11) Due Date; Late Payment Costs,

■ b. Under Section 1026.52—Limitations on Fees, revise 52(a)(1) General rule and 52(b) Limitations on Penalty Fees, and

■ c. Under Section 1026.60—Credit and Charge Card Applications and Solicitations, revise 60(a)(2) Form of Disclosures; Tabular Format.

The revisions read as follows:

Supplement I to Part 1026—Official Interpretations

Section 1026.7—Periodic Statement

* * * * *

7(b)(11) Due Date; Late Payment Costs

1. *Informal periods affecting late payments.* Although the terms of the account

[192] The Bureau performed a linear regression of credit card revenue share on credit card asset share for small banks that have any credit card assets, using cross sectional data from the fourth quarter of years 2018–2021. The slope of a regression line that crosses the origin is between 0.68 and 1.02, with an out-of-sample R^2 measure of goodness-of-fit between 0.22 and 0.55. The relationship is steeper before the pandemic, explaining more of the cross-sectional variance in the revenue share.

[193] 44 U.S.C. 3506; 5 CFR 1320.

agreement may provide that a card issuer may assess a late payment fee if a payment is not received by a certain date, the card issuer may have an informal policy or practice that delays the assessment of the late payment fee for payments received a brief period of time after the date upon which a card issuer has the contractual right to impose the fee. A card issuer must disclose the due date according to the legal obligation between the parties, and need not consider the end of an informal ''courtesy period'' as the due date under § 1026.7(b)(11).

2. *Assessment of late payment fees.* Some State or other laws require that a certain number of days must elapse following a due date before a late payment fee may be imposed. In addition, a card issuer may be restricted by the terms of the account agreement from imposing a late payment fee until a payment is late for a certain number of days following a due date. For example, assume a payment is due on March 10 and the account agreement or State law provides that a late payment fee cannot be assessed before March 21. A card issuer must disclose the due date under the terms of the legal obligation (March 10 in this example), and not a date different than the due date, such as when the card issuer is restricted by the account agreement or State or other law from imposing a late payment fee unless a payment is late for a certain number of days following the due date (March 21 in this example). Consumers' rights under State law to avoid the imposition of late payment fees during a specified period following a due date are unaffected by the disclosure requirement. In this example, the card issuer would disclose March 10 as the due date for purposes of § 1026.7(b)(11), but could not, under State law, assess a late payment fee before March 21.

3. *Fee or rate triggered by multiple events.* If a late payment fee or penalty rate is triggered after multiple events, such as two late payments in six months, the card issuer may, but is not required to, disclose the late payment and penalty rate disclosure each month. The disclosures must be included on any periodic statement for which a late payment could trigger the late payment fee or penalty rate, such as after the consumer made one late payment in this example. For example, if a cardholder has already made one late payment, the disclosure must be on each statement for the following five billing cycles.

4. *Range of late fees or penalty rates.* A card issuer that imposes a range of late payment fees or rates on a credit card account under an open-end (not home-secured) consumer credit plan may state the highest fee or rate along with an indication lower fees or rates could be imposed. For example, a phrase indicating the late payment fee could be ''up to $8'' complies with this requirement.

5. *Penalty rate in effect.* If the highest penalty rate has previously been triggered on an account, the card issuer may, but is not required to, delete the amount of the penalty rate and the warning that the rate may be imposed for an untimely payment, as not applicable. Alternatively, the card issuer may, but is not required to, modify the language to indicate that the penalty rate has been increased due to previous late payments (if applicable).

6. *Same day each month.* The requirement that the due date be the same day each month means that the due date must generally be the same numerical date. For example, a consumer's due date could be the 25th of every month. In contrast, a due date that is the same relative date but not numerical date each month, such as the third Tuesday of the month, generally would not comply with this requirement. However, a consumer's due date may be the last day of each month, even though that date will not be the same numerical date. For example, if a consumer's due date is the last day of each month, it will fall on February 28th (or February 29th in a leap year) and on August 31st.

7. *Change in due date.* A creditor may adjust a consumer's due date from time to time provided that the new due date will be the same numerical date each month on an ongoing basis. For example, a creditor may choose to honor a consumer's request to change from a due date that is the 20th of each month to the 5th of each month, or may choose to change a consumer's due date from time to time for operational reasons. *See* comment 2(a)(4)–3 for guidance on transitional billing cycles.

8. *Billing cycles longer than one month.* The requirement that the due date be the same day each month does not prohibit billing cycles that are two or three months, provided that the due date for each billing cycle is on the same numerical date of the month. For example, a creditor that establishes two-month billing cycles could send a consumer periodic statements disclosing due dates of January 25, March 25, and May 25.

9. *Payment due date when the creditor does not accept or receive payments by mail.* If the due date in a given month falls on a day on which the creditor does not receive or accept payments by mail and the creditor is required to treat a payment received the next business day as timely pursuant to § 1026.10(d), the creditor must disclose the due date according to the legal obligation between the parties, not the date as of which the creditor is permitted to treat the payment as late. For example, assume that the consumer's due date is the 4th of every month, and the creditor does not accept or receive payments by mail on Thursday, July 4. Pursuant to § 1026.10(d), the creditor may not treat a mailed payment received on the following business day, Friday, July 5, as late for any purpose. The creditor must nonetheless disclose July 4 as the due date on the periodic statement and may not disclose a July 5 due date.

* * * * *

Section 1026.52—Limitations on Fees

52(a) Limitations During First Year After Account Opening

52(a)(1) General Rule

1. *Application.* The 25 percent limit in § 1026.52(a)(1) applies to fees that the card issuer charges to the account as well as to fees that the card issuer requires the consumer to pay with respect to the account through other means (such as through a payment from the consumer's asset account, including a prepaid account as defined in § 1026.61, to the card issuer or from another credit account provided by the card issuer). For example:

i. Assume that, under the terms of a credit card account, a consumer is required to pay $120 in fees for the issuance or availability of credit at account opening. The consumer is also required to pay a cash advance fee that is equal to five percent of the cash advance and a late payment fee of $8 if the required minimum periodic payment is not received by the payment due date (which is the twenty-fifth of the month). At account opening on January 1 of year one, the credit limit for the account is $500. Section 1026.52(a)(1) permits the card issuer to charge to the account the $120 in fees for the issuance or availability of credit at account opening. On February 1 of year one, the consumer uses the account for a $100 cash advance. Section 1026.52(a)(1) permits the card issuer to charge a $5 cash-advance fee to the account. On March 26 of year one, the card issuer has not received the consumer's required minimum periodic payment. Section 1026.52(a)(2) permits the card issuer to charge a $8 late payment fee to the account. On July 15 of year one, the consumer uses the account for a $50 cash advance. Section 1026.52(a)(1) does not permit the card issuer to charge a $2.50 cash advance fee to the account. Furthermore, § 1026.52(a)(1) prohibits the card issuer from collecting the $2.50 cash advance fee from the consumer by other means.

ii. Assume that, under the terms of a credit card account, a consumer is required to pay $125 in fees for the issuance or availability of credit during the first year after account opening. At account opening on January 1 of year one, the credit limit for the account is $500. Section 1026.52(a)(1) permits the card issuer to charge the $125 in fees to the account. However, § 1026.52(a)(1) prohibits the card issuer from requiring the consumer to make payments to the card issuer for additional non-exempt fees with respect to the account during the first year after account opening. Section 1026.52(a)(1) also prohibits the card issuer from requiring the consumer to open a separate credit account with the card issuer to fund the payment of additional non-exempt fees during the first year after the credit card account is opened.

iii. Assume that a consumer opens a prepaid account accessed by a prepaid card on January 1 of year one and opens a covered separate credit feature accessible by a hybrid prepaid-credit card as defined by § 1026.61 that is a credit card account under an open-end (not home-secured) consumer credit plan on March 1 of year one. Assume that, under the terms of the covered separate credit feature accessible by the hybrid prepaid-credit card, a consumer is required to pay $50 in fees for the issuance or availability of credit at account opening. At credit account opening on March 1 of year one, the credit limit for the account is $200. Section 1026.52(a)(1) permits the card issuer to charge the $50 in fees to the credit account. However, § 1026.52(a)(1) prohibits the card issuer from requiring the consumer to make

payments to the card issuer for additional non-exempt fees with respect to the credit account during the first year after account opening. Section 1026.52(a)(1) also prohibits the card issuer from requiring the consumer to open an additional credit feature with the card issuer to fund the payment of additional non-exempt fees during the first year after the covered separate credit feature is opened.

iv. Assume that a consumer opens a prepaid account accessed by a prepaid card on January 1 of year one and opens a covered separate credit feature accessible by a hybrid prepaid-credit card as defined in § 1026.61 that is a credit card account under an open-end (not home-secured) consumer credit plan on March 1 of year one. Assume that, under the terms of the covered separate credit feature accessible by the hybrid prepaid-credit card, a consumer is required to pay $120 in fees for the issuance or availability of credit at account opening. The consumer is also required to pay a cash advance fee that is equal to 5 percent of any cash advance and a late payment fee of $8 if the required minimum periodic payment is not received by the payment due date (which is the 25th of the month). At credit account opening on March 1 of year one, the credit limit for the account is $500. Section 1026.52(a)(1) permits the card issuer to charge to the account the $120 in fees for the issuance or availability of credit at account opening. On April 1 of year one, the consumer uses the account for a $100 cash advance. Section 1026.52(a)(1) permits the card issuer to charge a $5 cash advance fee to the account. On April 26 of year one, the card issuer has not received the consumer's required minimum periodic payment. Section 1026.52(a)(2) permits the card issuer to charge a $8 late payment fee to the account. On July 15 of year one, the consumer uses the account for a $50 cash advance. Section 1026.52(a)(1) does not permit the card issuer to charge a $2.50 cash advance fee to the account, because the total amount of non-exempt fees reached the 25 percent limit with the $5 cash advance fee on April 1 (the $8 late fee on April 26 is exempt pursuant to § 1026.52(a)(2)(i)). Furthermore, § 1026.52(a)(1) prohibits the card issuer from collecting the $2.50 cash advance fee from the consumer by other means.

2. *Fees that exceed 25 percent limit.* A card issuer that charges a fee to a credit card account that exceeds the 25 percent limit complies with § 1026.52(a)(1) if the card issuer waives or removes the fee and any associated interest charges or credits the account for an amount equal to the fee and any associated interest charges within a reasonable amount of time but no later than the end of the billing cycle following the billing cycle during which the fee was charged. For example, assuming the facts in the example in comment 52(a)(1)–1.i above, the card issuer complies with § 1026.52(a)(1) if the card issuer charged the $2.50 cash advance fee to the account on July 15 of year one but waived or removed the fee or credited the account for $2.50 (plus any interest charges on that $2.50) at the end of the billing cycle.

3. *Changes in credit limit during first year.*

i. *Increases in credit limit.* If a card issuer increases the credit limit during the first year after the account is opened, § 1026.52(a)(1) does not permit the card issuer to require the consumer to pay additional fees that would otherwise be prohibited (such as a fee for increasing the credit limit). For example, assume that, at account opening on January 1, the credit limit for a credit card account is $400 and the consumer is required to pay $100 in fees for the issuance or availability of credit. On July 1, the card issuer increases the credit limit for the account to $600. Section 1026.52(a)(1) does not permit the card issuer to require the consumer to pay additional fees based on the increased credit limit.

ii. *Decreases in credit limit.* If a card issuer decreases the credit limit during the first year after the account is opened, § 1026.52(a)(1) requires the card issuer to waive or remove any fees charged to the account that exceed 25 percent of the reduced credit limit or to credit the account for an amount equal to any fees the consumer was required to pay with respect to the account that exceed 25 percent of the reduced credit limit within a reasonable amount of time but no later than the end of the billing cycle following the billing cycle during which the credit limit was reduced. For example, assume that, at account opening on January 1, the credit limit for a credit card account is $1,000 and the consumer is required to pay $250 in fees for the issuance or availability of credit. The billing cycles for the account begin on the first day of the month and end on the last day of the month. On July 30, the card issuer decreases the credit limit for the account to $600. Section 1026.52(a)(1) requires the card issuer to waive or remove $100 in fees from the account or to credit the account for an amount equal to $100 within a reasonable amount of time but no later than August 31.

4. *Date on which account may first be used by consumer to engage in transactions.*

i. *Methods of compliance.* For purposes of § 1026.52(a)(1), an account is considered open no earlier than the date on which the account may first be used by the consumer to engage in transactions. A card issuer may consider an account open for purposes of § 1026.52(a)(1) on any of the following dates:

A. The date the account is first used by the consumer for a transaction (such as when an account is established in connection with financing the purchase of goods or services).

B. The date the consumer complies with any reasonable activation procedures imposed by the card issuer for preventing fraud or unauthorized use of a new account (such as requiring the consumer to provide information that verifies his or her identity), provided that the account may be used for transactions on that date.

C. The date that is seven days after the card issuer mails or delivers to the consumer account-opening disclosures that comply with § 1026.6, provided that the consumer may use the account for transactions after complying with any reasonable activation procedures imposed by the card issuer for preventing fraud or unauthorized use of the new account (such as requiring the consumer to provide information that verifies his or her identity). If a card issuer has reasonable procedures designed to ensure that account-opening disclosures that comply with § 1026.6 are mailed or delivered to consumers no later than a certain number of days after the card issuer establishes the account, the card issuer may add that number of days to the seven-day period for purposes of determining the date on which the account was opened.

ii. *Examples.* A. Assume that, on July 1 of year one, a credit card account under an open-end (not home-secured) consumer credit plan is established in connection with financing the purchase of goods or services and a $500 transaction is charged to the account by the consumer. The card issuer may consider the account open on July 1 of year one for purposes of § 1026.52(a)(1). Accordingly, § 1026.52(a)(1) ceases to apply to the account on July 1 of year two.

B. Assume that, on July 1 of year one, a card issuer approves a consumer's application for a credit card account under an open-end (not home-secured) consumer credit plan and establishes the account on its internal systems. On July 5, the card issuer mails or delivers to the consumer account-opening disclosures that comply with § 1026.6. If the consumer may use the account for transactions on the date the consumer complies with any reasonable procedures imposed by the card issuer for preventing fraud or unauthorized use, the card issuer may consider the account open on July 12 of year one for purposes of § 1026.52(a)(1). Accordingly, § 1026.52(a)(1) ceases to apply to the account on July 12 of year two.

C. Same facts as in paragraph B above except that the card issuer has adopted reasonable procedures designed to ensure that account-opening disclosures that comply with § 1026.6 are mailed or delivered to consumers no later than three days after an account is established on its systems. If the consumer may use the account for transactions on the date the consumer complies with any reasonable procedures imposed by the card issuer for preventing fraud or unauthorized use, the card issuer may consider the account open on July 11 of year one for purposes of § 1026.52(a)(1). Accordingly, § 1026.52(a)(1) ceases to apply to the account on July 11 of year two. However, if the consumer uses the account for a transaction or complies with the card issuer's reasonable procedures for preventing fraud or unauthorized use on July 8 of year one, the card issuer may, at its option, consider the account open on that date for purposes of § 1026.52(a)(1) and § 1026.52(a)(1) therefore ceases to apply to the account on July 8 of year two.

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52(b) Limitations on Penalty Fees

1. *Fees for violating the account terms or other requirements.* For purposes of § 1026.52(b), a fee includes any charge imposed by a card issuer based on an act or omission that violates the terms of the account or any other requirements imposed by the card issuer with respect to the account, other than charges attributable to periodic interest rates. Accordingly, for purposes of § 1026.52(b), a fee does not include charges attributable to an increase in an annual percentage rate based on an act or

omission that violates the terms or other requirements of an account.

i. The following are examples of fees that are subject to the limitations in § 1026.52(b) or are prohibited by § 1026.52(b):

A. Late payment fees and any other fees imposed by a card issuer if an account becomes delinquent or if a payment is not received by a particular date. A late payment fee or late fee is any fee imposed for a late payment. *See* § 1026.60(b)(9) and accompanying commentary.

B. Returned payment fees and any other fees imposed by a card issuer if a payment received via check, automated clearing house, or other payment method is returned.

C. Any fee or charge for an over-the-limit transaction as defined in § 1026.56(a), to the extent the imposition of such a fee or charge is permitted by § 1026.56.

D. Any fee imposed by a card issuer if payment on a check that accesses a credit card account is declined.

E. Any fee or charge for a transaction that the card issuer declines to authorize. *See* § 1026.52(b)(2)(i)(B).

F. Any fee imposed by a card issuer based on account inactivity (including the consumer's failure to use the account for a particular number or dollar amount of transactions or a particular type of transaction). *See* § 1026.52(b)(2)(i)(B).

G. Any fee imposed by a card issuer based on the closure or termination of an account. *See* § 1026.52(b)(2)(i)(B).

ii. The following are examples of fees to which § 1026.52(b) does not apply:

A. Balance transfer fees.

B. Cash advance fees.

C. Foreign transaction fees.

D. Annual fees and other fees for the issuance or availability of credit described in § 1026.60(b)(2), except to the extent that such fees are based on account inactivity. *See* § 1026.52(b)(2)(i)(B).

E. Fees for insurance described in § 1026.4(b)(7) or debt cancellation or debt suspension coverage described in § 1026.4(b)(10) written in connection with a credit transaction, provided that such fees are not imposed as a result of a violation of the account terms or other requirements of an account.

F. Fees for making an expedited payment (to the extent permitted by § 1026.10(e)).

G. Fees for optional services (such as travel insurance).

H. Fees for reissuing a lost or stolen card.

2. *Rounding to nearest whole dollar.* A card issuer may round any fee that complies with § 1026.52(b) to the nearest whole dollar. For example, if § 1026.52(b) permits a card issuer to impose a late payment fee of $5.50, the card issuer may round that amount up to the nearest whole dollar and impose a late payment fee of $6. However, if the late payment fee permitted by § 1026.52(b) were $5.49, the card issuer would not be permitted to round that amount up to $6, although the card issuer could round that amount down and impose a late payment fee of $5.

3. *Fees in connection with covered separate credit features accessible by hybrid prepaid-credit cards.* With regard to a covered separate credit feature and an asset feature on a prepaid account that are both accessible by a hybrid prepaid-credit card as defined in § 1026.61 where the credit feature is a credit card account under an open-end (not home-secured) consumer credit plan, § 1026.52(b) applies to any fee for violating the terms or other requirements of the credit feature, regardless of whether those fees are imposed on the credit feature or on the asset feature of the prepaid account. For example, assume that a late fee will be imposed by the card issuer if the covered separate credit feature becomes delinquent or if a payment is not received by a particular date. This fee is subject to § 1026.52(b) regardless of whether the fee is imposed on the asset feature of the prepaid account or on the separate credit feature.

4. *Fees imposed on the asset feature of a prepaid account that are not charges imposed as part of the plan.* Section 1026.52(b) does not apply to any fee or charge imposed on the asset feature of the prepaid account that is not a charge imposed as part of the plan under § 1026.6(b)(3). *See* § 1026.6(b)(3)(iii)(D) and (E) and related commentary regarding fees imposed on the asset feature prepaid account that are not charges imposed as part of the plan under § 1026.6(b)(3) with respect to covered separate credit features accessible by hybrid prepaid-credit cards and non-covered separate credit features as those terms are defined in § 1026.61.

5. *Examples.* Any dollar amount examples in the commentary to § 1026.52(b) relating to the safe harbors in § 1026.52(b)(1) are based on the original historical safe-harbor thresholds of $25 and $35 for penalty fees other than late fees, and on the threshold of $8 for late fees.

52(b)(1) General Rule

1. *Relationship between § 1026.52(b)(1)(i), (b)(1)(ii), and (b)(2).*

i. *Relationship between § 1026.52(b)(1)(i) and (b)(1)(ii).* A card issuer may impose a fee for violating the terms or other requirements of an account pursuant to either § 1026.52(b)(1)(i) or (b)(1)(ii).

A. A card issuer that complies with the safe harbors in § 1026.52(b)(1)(ii) is not required to determine that its fees represent a reasonable proportion of the total costs incurred by the card issuer as a result of a type of violation under § 1026.52(b)(1)(i).

B. A card issuer may impose a fee for one type of violation pursuant to § 1026.52(b)(1)(i) and may impose a fee for a different type of violation pursuant to § 1026.52(b)(1)(ii). For example, a card issuer may impose a late payment fee of $9 based on a cost determination pursuant to § 1026.52(b)(1)(i) but impose returned payment and over-the-limit fees of $25 or $35 pursuant to the safe harbors in § 1026.52(b)(1)(ii).

C. A card issuer that previously based the amount of a penalty fee for a particular type of violation on a cost determination pursuant to § 1026.52(b)(1)(i) may begin to impose a penalty fee for that type of violation that is consistent with § 1026.52(b)(1)(ii) at any time (subject to the notice requirements in § 1026.9), provided that the first fee imposed pursuant to § 1026.52(b)(1)(ii) is consistent with § 1026.52(b)(1)(ii)(A). For example, assume that consistent with § 1026.56, a consumer has affirmatively consented to the payment of transactions that exceed the credit limit. A transaction occurs on January 15 that causes the account balance to exceed the credit limit and, based on a cost determination pursuant to § 1026.52(b)(1)(i), the card issuer imposes a $30 over-the-limit fee. The consumer's next monthly payment brings the account balance below the credit limit. On July 15, another transaction causes the account balance to exceed the credit limit. The card issuer may impose another $30 over-the-limit fee pursuant to § 1026.52(b)(1)(i) or may impose a $25 over-the-limit fee pursuant to § 1026.52(b)(1)(ii)(A). However, the card issuer may not impose a $35 over-the-limit fee pursuant to § 1026.52(b)(1)(ii)(B). If the card issuer imposes a $25 fee pursuant to § 1026.52(b)(1)(ii)(A) for the July 15 over-the-limit transaction and on September 15 another transaction causes the account balance to exceed the credit limit, the card issuer may impose a $35 fee for the September 15 over-the-limit transaction pursuant to § 1026.52(b)(1)(ii)(B).

ii. *Relationship between § 1026.52(b)(1) and (b)(2).* Section 1026.52(b)(1) does not permit a card issuer to impose a fee that is inconsistent with the prohibitions in § 1026.52(b)(2). For example, if § 1026.52(b)(2)(i) prohibits the card issuer from imposing a late payment fee that exceeds $7, § 1026.52(b)(1)(ii) does not permit the card issuer to impose a higher late payment fee.

52(b)(1)(i) Fees Based on Costs

1. *Costs incurred as a result of violations.* Section 1026.52(b)(1)(i) does not require a card issuer to base a fee on the costs incurred as a result of a specific violation of the terms or other requirements of an account. Instead, for purposes of § 1026.52(b)(1)(i), a card issuer must have determined that a fee for violating the terms or other requirements of an account represents a reasonable proportion of the costs incurred by the card issuer as a result of that type of violation. A card issuer may make a single determination for all of its credit card portfolios or may make separate determinations for each portfolio. The factors relevant to this determination include:

i. The number of violations of a particular type experienced by the card issuer during a prior period of reasonable length (for example, a period of twelve months).

ii. The costs incurred by the card issuer during that period as a result of those violations.

iii. At the card issuer's option, the number of fees imposed by the card issuer as a result of those violations during that period that the card issuer reasonably estimates it will be unable to collect. *See* comment 52(b)(1)(i)–5.

iv. At the card issuer's option, reasonable estimates for an upcoming period of changes in the number of violations of that type, the resulting costs, and the number of fees that the card issuer will be unable to collect. *See* illustrative examples in comments 52(b)(1)(i)–6 through –9.

2. *Amounts excluded from cost analysis.* The following amounts are not costs incurred by a card issuer as a result of violations of

the terms or other requirements of an account for purposes of § 1026.52(b)(1)(i):

i. Losses and associated costs (including the cost of holding reserves against potential losses, the cost of funding delinquent accounts, and any collection costs that are incurred after an account is charged off in accordance with loan-loss provisions).

ii. Costs associated with evaluating whether consumers who have not violated the terms or other requirements of an account are likely to do so in the future (such as the costs associated with underwriting new accounts). However, once a violation of the terms or other requirements of an account has occurred, the costs associated with preventing additional violations for a reasonable period of time are costs incurred by a card issuer as a result of violations of the terms or other requirements of an account for purposes of § 1026.52(b)(1)(i).

3. *Third-party charges.* As a general matter, amounts charged to the card issuer by a third party as a result of a violation of the terms or other requirements of an account are costs incurred by the card issuer for purposes of § 1026.52(b)(1)(i). For example, if a card issuer is charged a specific amount by a third party for each returned payment, that amount is a cost incurred by the card issuer as a result of returned payments. However, if the amount is charged to the card issuer by an affiliate or subsidiary of the card issuer, the card issuer must have determined that the charge represents a reasonable proportion of the costs incurred by the affiliate or subsidiary as a result of the type of violation. For example, if an affiliate of a card issuer provides collection services to the card issuer on delinquent accounts, the card issuer must have determined that the amounts charged to the card issuer by the affiliate for such services represent a reasonable proportion of the costs incurred by the affiliate as a result of late payments.

4. *Amounts charged by other card issuers.* The fact that a card issuer's fees for violating the terms or other requirements of an account are comparable to fees assessed by other card issuers does not satisfy the requirements of § 1026.52(b)(1)(i).

5. *Uncollected fees.* For purposes of § 1026.52(b)(1)(i), a card issuer may consider fees that it is unable to collect when determining the appropriate fee amount. Fees that the card issuer is unable to collect include fees imposed on accounts that have been charged off by the card issuer, fees that have been discharged in bankruptcy, and fees that the card issuer is required to waive in order to comply with a legal requirement (such as a requirement imposed by 12 CFR part 1026 or 50 U.S.C. app. 527). However, fees that the card issuer chooses not to impose or chooses not to collect (such as fees the card issuer chooses to waive at the request of the consumer or under a workout or temporary hardship arrangement) are not relevant for purposes of this determination. *See* illustrative examples in comments 52(b)(2)(i)–6 through –9.

6. *Late payment fees.*

i. *Costs incurred as a result of late payments.* For purposes of § 1026.52(b)(1)(i), the costs incurred by a card issuer as a result of late payments include the costs associated with the collection of late payments, such as the costs associated with notifying consumers of delinquencies and resolving delinquencies (including the establishment of workout and temporary hardship arrangements).

ii. *Examples.* A. *Late payment fee based on past delinquencies and costs.* Assume that, during year one, a card issuer experienced 1 million delinquencies and incurred $26 million in costs as a result of those delinquencies. For purposes of § 1026.52(b)(1)(i), a $26 late payment fee would represent a reasonable proportion of the total costs incurred by the card issuer as a result of late payments during year two.

B. *Adjustment based on fees card issuer is unable to collect.* Same facts as above except that the card issuer imposed a late payment fee for each of the 1 million delinquencies experienced during year one but was unable to collect 25% of those fees (in other words, the card issuer was unable to collect 250,000 fees, leaving a total of 750,000 late payments for which the card issuer did collect or could have collected a fee). For purposes of § 1026.52(b)(2)(i), a late payment fee of $35 would represent a reasonable proportion of the total costs incurred by the card issuer as a result of late payments during year two.

C. *Adjustment based on reasonable estimate of future changes.* Same facts as paragraphs A and B above except the card issuer reasonably estimates that—based on past delinquency rates and other factors relevant to potential delinquency rates for year two—it will experience a 2% decrease in delinquencies during year two (in other words, 20,000 fewer delinquencies for a total of 980,000). The card issuer also reasonably estimates that it will be unable to collect the same percentage of fees (25%) during year two as during year one (in other words, the card issuer will be unable to collect 245,000 fees, leaving a total of 735,000 late payments for which the card issuer will be able to collect a fee). The card issuer also reasonably estimates that—based on past changes in costs incurred as a result of delinquencies and other factors relevant to potential costs for year two—it will experience a 5% increase in costs during year two (in other words, $1.3 million in additional costs for a total of $27.3 million). For purposes of § 1026.52(b)(1)(i), a $37 late payment fee would represent a reasonable proportion of the total costs incurred by the card issuer as a result of late payments during year two.

7. *Returned payment fees.*

i. *Costs incurred as a result of returned payments.* For purposes of § 1026.52(b)(1)(i), the costs incurred by a card issuer as a result of returned payments include:

A. Costs associated with processing returned payments and reconciling the card issuer's systems and accounts to reflect returned payments;

B. Costs associated with investigating potential fraud with respect to returned payments; and

C. Costs associated with notifying the consumer of the returned payment and arranging for a new payment.

ii. *Examples.* A. *Returned payment fee based on past returns and costs.* Assume that, during year one, a card issuer experienced 150,000 returned payments and incurred $3.1 million in costs as a result of those returned payments. For purposes of § 1026.52(b)(1)(i), a $21 returned payment fee would represent a reasonable proportion of the total costs incurred by the card issuer as a result of returned payments during year two.

B. *Adjustment based on fees card issuer is unable to collect.* Same facts as above except that the card issuer imposed a returned payment fee for each of the 150,000 returned payments experienced during year one but was unable to collect 15% of those fees (in other words, the card issuer was unable to collect 22,500 fees, leaving a total of 127,500 returned payments for which the card issuer did collect or could have collected a fee). For purposes of § 1026.52(b)(2)(i), a returned payment fee of $24 would represent a reasonable proportion of the total costs incurred by the card issuer as a result of returned payments during year two.

C. *Adjustment based on reasonable estimate of future changes.* Same facts as paragraphs A and B above except the card issuer reasonably estimates that—based on past returned payment rates and other factors relevant to potential returned payment rates for year two—it will experience a 2% increase in returned payments during year two (in other words, 3,000 additional returned payments for a total of 153,000). The card issuer also reasonably estimates that it will be unable to collect 25% of returned payment fees during year two (in other words, the card issuer will be unable to collect 38,250 fees, leaving a total of 114,750 returned payments for which the card issuer will be able to collect a fee). The card issuer also reasonably estimates that—based on past changes in costs incurred as a result of returned payments and other factors relevant to potential costs for year two—it will experience a 1% decrease in costs during year two (in other words, a $31,000 reduction in costs for a total of $3.069 million). For purposes of § 1026.52(b)(1)(i), a $27 returned payment fee would represent a reasonable proportion of the total costs incurred by the card issuer as a result of returned payments during year two.

8. *Over-the-limit fees.*

i. *Costs incurred as a result of over-the-limit transactions.* For purposes of § 1026.52(b)(1)(i), the costs incurred by a card issuer as a result of over-the-limit transactions include:

A. Costs associated with determining whether to authorize over-the-limit transactions; and

B. Costs associated with notifying the consumer that the credit limit has been exceeded and arranging for payments to reduce the balance below the credit limit.

ii. *Costs not incurred as a result of over-the-limit transactions.* For purposes of § 1026.52(b)(1)(i), costs associated with obtaining the affirmative consent of consumers to the card issuer's payment of transactions that exceed the credit limit consistent with § 1026.56 are not costs incurred by a card issuer as a result of over-the-limit transactions.

iii. *Examples.* A. *Over-the-limit fee based on past fees and costs.* Assume that, during

year one, a card issuer authorized 600,000 over-the-limit transactions and incurred $4.5 million in costs as a result of those over-the-limit transactions. However, because of the affirmative consent requirements in § 1026.56, the card issuer was only permitted to impose 200,000 over-the-limit fees during year one. For purposes of § 1026.52(b)(1)(i), a $23 over-the-limit fee would represent a reasonable proportion of the total costs incurred by the card issuer as a result of over-the-limit transactions during year two.

B. *Adjustment based on fees card issuer is unable to collect.* Same facts as above except that the card issuer was unable to collect 30% of the 200,000 over-the-limit fees imposed during year one (in other words, the card issuer was unable to collect 60,000 fees, leaving a total of 140,000 over-the-limit transactions for which the card issuer did collect or could have collected a fee). For purposes of § 1026.52(b)(2)(i), an over-the-limit fee of $32 would represent a reasonable proportion of the total costs incurred by the card issuer as a result of over-the-limit transactions during year two.

C. *Adjustment based on reasonable estimate of future changes.* Same facts as paragraphs A and B above except the card issuer reasonably estimates that—based on past over-the-limit transaction rates, the percentages of over-the-limit transactions that resulted in an over-the-limit fee in the past (consistent with § 1026.56), and factors relevant to potential changes in those rates and percentages for year two—it will authorize approximately the same number of over-the-limit transactions during year two (600,000) and impose approximately the same number of over-the-limit fees (200,000). The card issuer also reasonably estimates that it will be unable to collect the same percentage of fees (30%) during year two as during year one (in other words, the card issuer was unable to collect 60,000 fees, leaving a total of 140,000 over-the-limit transactions for which the card issuer will be able to collect a fee). The card issuer also reasonably estimates that—based on past changes in costs incurred as a result of over-the-limit transactions and other factors relevant to potential costs for year two—it will experience a 6% decrease in costs during year two (in other words, a $270,000 reduction in costs for a total of $4.23 million). For purposes of § 1026.52(b)(1)(i), a $30 over-the-limit fee would represent a reasonable proportion of the total costs incurred by the card issuer as a result of over-the-limit transactions during year two.

9. *Declined access check fees.*

i. *Costs incurred as a result of declined access checks.* For purposes of § 1026.52(b)(1)(i), the costs incurred by a card issuer as a result of declining payment on a check that accesses a credit card account include:

A. Costs associated with determining whether to decline payment on access checks;

B. Costs associated with processing declined access checks and reconciling the card issuer's systems and accounts to reflect declined access checks;

C. Costs associated with investigating potential fraud with respect to declined access checks; and

D. Costs associated with notifying the consumer and the merchant or other party that accepted the access check that payment on the check has been declined.

ii. *Example.* Assume that, during year one, a card issuer declined 100,000 access checks and incurred $2 million in costs as a result of those declined checks. The card issuer imposed a fee for each declined access check but was unable to collect 10% of those fees (in other words, the card issuer was unable to collect 10,000 fees, leaving a total of 90,000 declined access checks for which the card issuer did collect or could have collected a fee). For purposes of § 1026.52(b)(1)(i), a $22 declined access check fee would represent a reasonable proportion of the total costs incurred by the card issuer as a result of declined access checks during year two.

52(b)(1)(ii) Safe Harbors

1. *Multiple violations of same type.*

i. *Same billing cycle or next six billing cycles.* A card issuer cannot impose a late fee in excess of $8 pursuant to § 1026.52(b)(1)(ii), regardless of whether the card issuer has imposed a late fee within the six previous billing cycles. For all other penalty fees, a card issuer cannot impose a fee for a violation pursuant to § 1026.52(b)(1)(ii)(B) unless a fee has previously been imposed for the same type of violation pursuant to § 1026.52(b)(1)(ii)(A). Once a fee has been imposed for a violation pursuant to § 1026.52(b)(1)(ii)(A), the card issuer may impose a fee pursuant to § 1026.52(b)(1)(ii)(B) for any subsequent violation of the same type until that type of violation has not occurred for a period of six consecutive complete billing cycles. A fee has been imposed for purposes of § 1026.52(b)(1)(ii) even if the card issuer waives or rebates all or part of the fee.

A. *Late payments.* For purposes of § 1026.52(b)(1)(ii), a late payment occurs during the billing cycle in which the payment may first be treated as late consistent with the requirements of this part and the terms or other requirements of the account.

B. *Returned payments.* For purposes of § 1026.52(b)(1)(ii), a returned payment occurs during the billing cycle in which the payment is returned to the card issuer.

C. *Transactions that exceed the credit limit.* For purposes of § 1026.52(b)(1)(ii), a transaction that exceeds the credit limit for an account occurs during the billing cycle in which the transaction occurs or is authorized by the card issuer.

D. *Declined access checks.* For purposes of § 1026.52(b)(1)(ii), a check that accesses a credit card account is declined during the billing cycle in which the card issuer declines payment on the check.

ii. *Relationship to §§ 1026.52(b)(2)(ii) and 1026.56(j)(1).* If multiple violations are based on the same event or transaction such that § 1026.52(b)(2)(ii) prohibits the card issuer from imposing more than one fee, the event or transaction constitutes a single violation for purposes of § 1026.52(b)(1)(ii). Furthermore, consistent with § 1026.56(j)(1)(i), no more than one violation for exceeding an account's credit limit can occur during a single billing cycle for purposes of § 1026.52(b)(1)(ii). However, § 1026.52(b)(2)(ii) does not prohibit a card issuer from imposing fees for exceeding the credit limit in consecutive billing cycles based on the same over-the-limit transaction to the extent permitted by § 1026.56(j)(1). In these circumstances, the second and third over-the-limit fees permitted by § 1026.56(j)(1) may be imposed pursuant to § 1026.52(b)(1)(ii)(B). *See* comment 52(b)(2)(ii)–1.

iii. *Examples.* The following examples illustrate the application of § 1026.52(b)(1)(ii), (b)(1)(ii)(A), and (b)(1)(ii)(B) with respect to credit card accounts under an open-end (not home-secured) consumer credit plan that are not charge card accounts. For purposes of these examples, assume that the billing cycles for the account begin on the first day of the month and end on the last day of the month and that the payment due date for the account is the twenty-fifth day of the month.

A. *Violations of same type (over the credit limit).* Consistent with § 1026.56, the consumer has affirmatively consented to the payment of transactions that exceed the credit limit. On March 20, a transaction causes the account balance to increase to $1,150, which exceeds the account's $1,000 credit limit. Consistent with § 1026.52(b)(1)(ii)(A), the card issuer imposes a $25 over-the-limit fee for the March billing cycle. The card issuer receives a $300 payment on March 25, bringing the account below the credit limit. In order for the card issuer to impose a $35 over-the-limit fee pursuant to § 1026.52(b)(1)(ii)(B), a second over-the-limit transaction must occur during the April, May, June, July, August, or September billing cycles.

1. Same facts as above. On April 20, a transaction causes the account balance to increase to $1,200, which exceeds the account's $1,000 credit limit. Consistent with § 1026.52(b)(1)(ii)(B), the card issuer may impose a $35 over-the-limit fee for the April billing cycle. Furthermore, the card issuer may impose a $35 over-the-limit payment fee for any over-the-limit transaction or event that triggers an over-the-limit fee that occurs during the May, June, July, August, September, or October billing cycles, subject to the limitations in § 1026.56(j)(1).

2. Same facts as in paragraph A above. The account remains below the limit from March 25 until October 20, when a transaction causes the account balance to exceed the credit limit. However, because this over-the-limit transaction did not occur during the six billing cycles following the March billing cycle, § 1026.52(b)(1)(ii) only permits the card issuer to impose an over-the-limit fee of $25.

B. *Violations of different types (late payment and over the credit limit).* The credit limit for an account is $1,000. Consistent with § 1026.56, the consumer has affirmatively consented to the payment of transactions that exceed the credit limit. A required minimum periodic payment of $35 is due on August 25. On August 26, a late payment has occurred because no payment has been received. Accordingly, consistent with § 1026.52(b)(1)(ii), the card issuer imposes a $8 late payment fee on August 26.

On August 30, the card issuer receives a $35 payment. On September 10, a transaction causes the account balance to increase to $1,150, which exceeds the account's $1,000 credit limit. On September 11, a second transaction increases the account balance to $1,350. On September 23, the card issuer receives the $50 required minimum periodic payment due on September 25, which reduces the account balance to $1,300. On September 30, the card issuer imposes a $25 over-the-limit fee, consistent with § 1026.52(b)(1)(ii)(A). On October 26, a late payment has occurred because the $60 required minimum periodic payment due on October 25 has not been received. Accordingly, consistent with § 1026.52(b)(1)(ii) the card issuer imposes a $8 late payment fee on October 26.

C. *Violations of different types (late payment and returned payment).* A required minimum periodic payment of $40 is due on July 25. On July 26, a late payment has occurred because no payment has been received. Accordingly, consistent with § 1026.52(b)(1)(ii), the card issuer imposes a $8 late payment fee on July 26. On July 30, the card issuer receives a $60 payment. A required minimum periodic payment of $40 is due on August 25. On August 24, a $40 payment is received. On August 27, the $40 payment is returned to the card issuer for insufficient funds. In these circumstances, § 1026.52(b)(2)(ii) permits the card issuer to impose either a late payment fee or a returned payment fee but not both, because the late payment and the returned payment result from the same event or transaction. Accordingly, for purposes of § 1026.52(b)(1)(ii), the event or transaction constitutes a single violation. However, if the card issuer imposes a late payment fee, § 1026.52(b)(1)(ii) permits the issuer to impose a fee of $8. If the card issuer imposes a returned payment fee, the amount of the fee may be no more than $25 pursuant to § 1026.52(b)(1)(ii)(A).

2. *Adjustments based on Consumer Price Index for penalty fees other than late fees.* For purposes of § 1026.52(b)(1)(ii)(A) and (b)(1)(ii)(B), the Bureau shall calculate each year price level adjusted amounts for penalty fees other than late fees using the Consumer Price Index in effect on June 1 of that year. When the cumulative change in the adjusted minimum value derived from applying the annual Consumer Price level to the current amounts in § 1026.52(b)(1)(ii)(A) and (b)(1)(ii)(B) has risen by a whole dollar, those amounts will be increased by $1.00. Similarly, when the cumulative change in the adjusted minimum value derived from applying the annual Consumer Price level to the current amounts in § 1026.52(b)(1)(ii)(A) and (b)(1)(ii)(B) has decreased by a whole dollar, those amounts will be decreased by $1.00. The Bureau will publish adjustments to the amounts in § 1026.52(b)(1)(ii)(A) and (b)(1)(ii)(B).

i. *Historical thresholds.*

A. Card issuers were permitted to impose a fee for violating the terms of an agreement if the fee did not exceed $25 under § 1026.52(b)(1)(ii)(A) and $35 under § 1026.52(b)(1)(ii)(B), through December 31, 2013.

B. Card issuers were permitted to impose a fee for violating the terms of an agreement if the fee did not exceed $26 under § 1026.52(b)(1)(ii)(A) and $37 under § 1026.52(b)(1)(ii)(B), through December 31, 2014.

C. Card issuers were permitted to impose a fee for violating the terms of an agreement if the fee did not exceed $27 under § 1026.52(b)(1)(ii)(A) and $38 under § 1026.52(b)(1)(ii)(B), through December 31, 2015.

D. Card issuers were permitted to impose a fee for violating the terms of an agreement if the fee did not exceed $27 under § 1026.52(b)(1)(ii)(A), through December 31, 2016. Card issuers were permitted to impose a fee for violating the terms of an agreement if the fee did not exceed $37 under § 1026.52(b)(1)(ii)(B), through June 26, 2016, and $38 under § 1026.52(b)(1)(ii)(B) from June 27, 2016, through December 31, 2016.

E. Card issuers were permitted to impose a fee for violating the terms of an agreement if the fee did not exceed $27 under § 1026.52(b)(1)(ii)(A) and $38 under § 1026.52(b)(1)(ii)(B), through December 31, 2017.

F. Card issuers were permitted to impose a fee for violating the terms of an agreement if the fee did not exceed $27 under § 1026.52(b)(1)(ii)(A) and $38 under § 1026.52(b)(1)(ii)(B), through December 31, 2018.

G. Card issuers were permitted to impose a fee for violating the terms of an agreement if the fee did not exceed $28 under § 1026.52(b)(1)(ii)(A) and $39 under § 1026.52(b)(1)(ii)(B), through December 31, 2019.

H. Card issuers were permitted to impose a fee for violating the terms of an agreement if the fee did not exceed $29 under § 1026.52(b)(1)(ii)(A) and $40 under § 1026.52(b)(1)(ii)(B), through December 31, 2020.

I. Card issuers were permitted to impose a fee for violating the terms of an agreement if the fee did not exceed $29 under § 1026.52(b)(1)(ii)(A) and $40 under § 1026.52(b)(1)(ii)(B), through December 31, 2021.

3. *Delinquent balance for charge card accounts.* Section 1026.52(b)(1)(ii)(C) provides that, when a charge card issuer that requires payment of outstanding balances in full at the end of each billing cycle has not received the required payment for two or more consecutive billing cycles, the card issuer may impose a late payment fee that does not exceed three percent of the delinquent balance. For purposes of § 1026.52(b)(1)(ii)(C), the delinquent balance is any previously billed amount that remains unpaid at the time the late payment fee is imposed pursuant to § 1026.52(b)(1)(ii)(C). Consistent with § 1026.52(b)(2)(ii), a charge card issuer that imposes a fee pursuant to § 1026.52(b)(1)(ii)(C) with respect to a late payment may not impose a fee pursuant to § 1026.52(b)(1)(ii)(B) with respect to the same late payment. The following examples illustrate the application of § 1026.52(b)(1)(ii)(C):

i. Assume that a charge card issuer requires payment of outstanding balances in full at the end of each billing cycle and that the billing cycles for the account begin on the first day of the month and end on the last day of the month. At the end of the June billing cycle, the account has a balance of $1,000. On July 5, the card issuer provides a periodic statement disclosing the $1,000 balance consistent with § 1026.7. During the July billing cycle, the account is used for $292 in transactions, increasing the balance to $1,292. At the end of the July billing cycle, no payment has been received and the card issuer imposes a $8 late payment fee consistent with § 1026.52(b)(1)(ii). On August 5, the card issuer provides a periodic statement disclosing the $1,300 balance consistent with § 1026.7. During the August billing cycle, the account is used for $200 in transactions, increasing the balance to $1,500. At the end of the August billing cycle, no payment has been received. Consistent with § 1026.52(b)(1)(ii)(C), the card issuer may impose a late payment fee of $39, which is 3% of the $1,300 balance that was due at the end of the August billing cycle. Section 1026.52(b)(1)(ii)(C) does not permit the card issuer to include the $200 in transactions that occurred during the August billing cycle.

ii. Same facts as above except that, on August 25, a $100 payment is received. Consistent with § 1026.52(b)(1)(ii)(C), the card issuer may impose a late payment fee of $36, which is 3% of the unpaid portion of the $1,300 balance that was due at the end of the August billing cycle ($1,200).

iii. Same facts as in paragraph i above except that, on August 25, a $200 payment is received. Consistent with § 1026.52(b)(1)(ii)(C), the card issuer may impose a late payment fee of $33, which is 3% of the unpaid portion of the $1,300 balance that was due at the end of the August billing cycle ($1,100). In the alternative, the card issuer may impose a late payment fee of $8 consistent with § 1026.52(b)(1)(ii). However, § 1026.52(b)(2)(ii) prohibits the card issuer from imposing both fees.

52(b)(2) Prohibited Fees

1. *Relationship to § 1026.52(b)(1).* A card issuer does not comply with § 1026.52(b) if it imposes a fee that is inconsistent with the prohibitions in § 1026.52(b)(2). Thus, the prohibitions in § 1026.52(b)(2) apply even if a fee is consistent with § 1026.52(b)(1)(i) or (b)(1)(ii). For example, even if a card issuer has determined for purposes of § 1026.52(b)(1)(i) that a $27 fee represents a reasonable proportion of the total costs incurred by the card issuer as a result of a particular type of violation, § 1026.52(b)(2)(i) prohibits the card issuer from imposing that fee if the dollar amount associated with the violation is less than $27. Similarly, even if § 1026.52(b)(1)(ii) permits a card issuer to impose a $25 fee, § 1026.52(b)(2)(i) prohibits the card issuer from imposing that fee if the dollar amount associated with the violation is less than $25.

52(b)(2)(i) Late Payment Fees That Exceed 25 Percent of the Amount of the Required Minimum Periodic Payment or Fees, Other Than Late Payment Fees That Exceed Dollar Amount Associated With Violation

1. *Late payment fees.* Section 1026.52(b)(2)(i) provides that a card issuer

must not impose a fee for a late payment on a credit card account under an open-end (not home-secured) consumer credit plan that exceeds 25 percent of the amount of the required minimum periodic payment due immediately prior to assessment of the late payment fee. The required minimum periodic payment due immediately prior to the assessment of the late payment fee is the amount that the consumer is required to pay to avoid the late payment fee, including, as applicable, any missed payments and fees assessed from prior billing cycles. For example:

i. Assume that a $20 required minimum periodic payment is due on September 25. The card issuer does not receive any payment on or before September 25. On September 26, the card issuer imposes a late payment fee. For purposes of § 1026.52(b)(2)(i), the dollar amount associated with the late payment is twenty-five percent of the amount of the required minimum periodic payment due on September 25 ($5). Thus, under § 1026.52(b)(2)(i)(A), the amount of that fee cannot exceed $5 (even if a higher fee would be permitted under § 1026.52(b)(1)).

ii. Same facts as above except that, on September 25, the card issuer receives a $10 payment. No further payments are received. On September 26, the card issuer imposes a late payment fee. For purposes of § 1026.52(b)(2)(i), the dollar amount associated with the late payment is twenty-five percent of the full amount of the required minimum periodic payment due on September 25 ($5), rather than twenty-five percent of the unpaid portion of that payment ($2.50). Thus, under § 1026.52(b)(2)(i)(A), the amount of the late payment fee cannot exceed $5 (even if a higher fee would be permitted under § 1026.52(b)(1)).

iii. Assume that a $20 required minimum periodic payment is due on October 28 and the billing cycle for the account closes on October 31. The card issuer does not receive any payment on or before November 3. On November 3, the card issuer determines that the required minimum periodic payment due on November 28 is $50. On November 5, the card issuer imposes a late payment fee. For purposes of § 1026.52(b)(2)(i), the dollar amount associated with the late payment is twenty-five percent of the amount of the required minimum periodic payment due on October 28 ($5), rather than the amount of the required minimum periodic payment due on November 28 ($50). Thus, under § 1026.52(b)(2)(i)(A), the amount of that fee cannot exceed $5 (even if a higher fee would be permitted under § 1026.52(b)(1)).

2. *Returned payment fees.* For purposes of § 1026.52(b)(2)(i), the dollar amount associated with a returned payment is the amount of the required minimum periodic payment due immediately prior to the date on which the payment is returned to the card issuer. Thus, § 1026.52(b)(2)(i)(A) prohibits a card issuer from imposing a returned payment fee that exceeds the amount of that required minimum periodic payment. However, if a payment has been returned and is submitted again for payment by the card issuer, there is no additional dollar amount associated with a subsequent return of that payment and § 1026.52(b)(2)(i)(B) prohibits the card issuer from imposing an additional returned payment fee. For example:

i. Assume that the billing cycles for an account begin on the first day of the month and end on the last day of the month and that the payment due date is the twenty-fifth day of the month. A minimum payment of $15 is due on March 25. The card issuer receives a check for $100 on March 23, which is returned to the card issuer for insufficient funds on March 26. For purposes of § 1026.52(b)(2)(i), the dollar amount associated with the returned payment is the amount of the required minimum periodic payment due on March 25 ($15). Thus, § 1026.52(b)(2)(i)(A) prohibits the card issuer from imposing a returned payment fee that exceeds $15 (even if a higher fee would be permitted under § 1026.52(b)(1)). Furthermore, § 1026.52(b)(2)(ii) prohibits the card issuer from assessing both a late payment fee and a returned payment fee in these circumstances. *See* comment 52(b)(2)(ii)–1.

ii. Same facts as above except that the card issuer receives the $100 check on March 31 and the check is returned for insufficient funds on April 2. The minimum payment due on April 25 is $30. For purposes of § 1026.52(b)(2)(i), the dollar amount associated with the returned payment is the amount of the required minimum periodic payment due on March 25 ($15), rather than the amount of the required minimum periodic payment due on April 25 ($30). Thus, § 1026.52(b)(2)(i)(A) prohibits the card issuer from imposing a returned payment fee that exceeds $15 (even if a higher fee would be permitted under § 1026.52(b)(1)). Furthermore, § 1026.52(b)(2)(ii) prohibits the card issuer from assessing both a late payment fee and a returned payment fee in these circumstances. *See* comment 52(b)(2)(ii)–1.

iii. Same facts as paragraph i above except that, on March 28, the card issuer presents the $100 check for payment a second time. On April 1, the check is again returned for insufficient funds. Section 1026.52(b)(2)(i)(B) prohibits the card issuer from imposing a returned payment fee based on the return of the payment on April 1.

iv. Assume that the billing cycles for an account begin on the first day of the month and end on the last day of the month and that the payment due date is the twenty-fifth day of the month. A minimum payment of $15 is due on August 25. The card issuer receives a check for $15 on August 23, which is not returned. The card issuer receives a check for $50 on September 5, which is returned to the card issuer for insufficient funds on September 7. Section 1026.52(b)(2)(i)(B) does not prohibit the card issuer from imposing a returned payment fee in these circumstances. Instead, for purposes of § 1026.52(b)(2)(i), the dollar amount associated with the returned payment is the amount of the required minimum periodic payment due on August 25 ($15). Thus, § 1026.52(b)(2)(i)(A) prohibits the card issuer from imposing a returned payment fee that exceeds $15 (even if a higher fee would be permitted under § 1026.52(b)(1)).

3. *Over-the-limit fees.* For purposes of § 1026.52(b)(2)(i), the dollar amount associated with extensions of credit in excess of the credit limit for an account is the total amount of credit extended by the card issuer in excess of the credit limit during the billing cycle in which the over-the-limit fee is imposed. Thus, § 1026.52(b)(2)(i)(A) prohibits a card issuer from imposing an over-the-limit fee that exceeds that amount. Nothing in § 1026.52(b) permits a card issuer to impose an over-the-limit fee if imposition of the fee is inconsistent with § 1026.56. The following examples illustrate the application of § 1026.52(b)(2)(i)(A) to over-the-limit fees:

i. Assume that the billing cycles for a credit card account with a credit limit of $5,000 begin on the first day of the month and end on the last day of the month. Assume also that, consistent with § 1026.56, the consumer has affirmatively consented to the payment of transactions that exceed the credit limit. On March 1, the account has a $4,950 balance. On March 6, a $60 transaction is charged to the account, increasing the balance to $5,010. On March 25, a $5 transaction is charged to the account, increasing the balance to $5,015. On the last day of the billing cycle (March 31), the card issuer imposes an over-the-limit fee. For purposes of § 1026.52(b)(2)(i), the dollar amount associated with the extensions of credit in excess of the credit limit is the total amount of credit extended by the card issuer in excess of the credit limit during the March billing cycle ($15). Thus, § 1026.52(b)(2)(i)(A) prohibits the card issuer from imposing an over-the-limit fee that exceeds $15 (even if a higher fee would be permitted under § 1026.52(b)(1)).

ii. Same facts as above except that, on March 26, the card issuer receives a payment of $20, reducing the balance below the credit limit to $4,995. Nevertheless, for purposes of § 1026.52(b)(2)(i), the dollar amount associated with the extensions of credit in excess of the credit limit is the total amount of credit extended by the card issuer in excess of the credit limit during the March billing cycle ($15). Thus, consistent with § 1026.52(b)(2)(i)(A), the card issuer may impose an over-the-limit fee of $15.

4. *Declined access check fees.* For purposes of § 1026.52(b)(2)(i), the dollar amount associated with declining payment on a check that accesses a credit card account is the amount of the check. Thus, when a check that accesses a credit card account is declined, § 1026.52(b)(2)(i)(A) prohibits a card issuer from imposing a fee that exceeds the amount of that check. For example, assume that a check that accesses a credit card account is used as payment for a $50 transaction, but payment on the check is declined by the card issuer because the transaction would have exceeded the credit limit for the account. For purposes of § 1026.52(b)(2)(i), the dollar amount associated with the declined check is the amount of the check ($50). Thus, § 1026.52(b)(2)(i)(A) prohibits the card issuer from imposing a fee that exceeds $50. However, the amount of this fee must also comply with § 1026.52(b)(1)(i) or (b)(1)(ii).

5. *Inactivity fees.* Section 1026.52(b)(2)(i)(B)(*2*) prohibits a card issuer from imposing a fee with respect to a credit card account under an open-end (not home-secured) consumer credit plan based on

inactivity on that account (including the consumer's failure to use the account for a particular number or dollar amount of transactions or a particular type of transaction). For example, § 1026.52(b)(2)(i)(B)(*2*) prohibits a card issuer from imposing a $50 fee when a credit card account under an open-end (not home-secured) consumer credit plan is not used for at least $2,000 in purchases over the course of a year. Similarly, § 1026.52(b)(2)(i)(B)(*2*) prohibits a card issuer from imposing a $50 annual fee on all accounts of a particular type but waiving the fee on any account that is used for at least $2,000 in purchases over the course of a year if the card issuer promotes the waiver or rebate of the annual fee for purposes of § 1026.55(e). However, if the card issuer does not promote the waiver or rebate of the annual fee for purposes of § 1026.55(e), § 1026.52(b)(2)(i)(B)(*2*) does not prohibit a card issuer from considering account activity along with other factors when deciding whether to waive or rebate annual fees on individual accounts (such as in response to a consumer's request).

6. *Closed account fees.* Section 1026.52(b)(2)(i)(B)(*3*) prohibits a card issuer from imposing a fee based on the closure or termination of an account. For example, § 1026.52(b)(2)(i)(B)(*3*) prohibits a card issuer from:

i. Imposing a one-time fee to consumers who close their accounts.

ii. Imposing a periodic fee (such as an annual fee, a monthly maintenance fee, or a closed account fee) after an account is closed or terminated if that fee was not imposed prior to closure or termination. This prohibition applies even if the fee was disclosed prior to closure or termination. *See also* comment 55(d)–1.

iii. Increasing a periodic fee (such as an annual fee or a monthly maintenance fee) after an account is closed or terminated. However, a card issuer is not prohibited from continuing to impose a periodic fee that was imposed before the account was closed or terminated.

7. *Declined transaction fees.* Section 1026.52(b)(2)(i)(B)(*1*) states that card issuers must not impose a fee when there is no dollar amount associated with the violation, such as for transactions that the card issuer declines to authorize. With regard to a covered separate credit feature and an asset feature on a prepaid account that are both accessible by a hybrid prepaid-credit card as defined in § 1026.61 where the credit feature is a credit card account under an open-end (not home-secured) consumer credit plan, § 1026.52(b)(2)(i)(B)(*1*) prohibits a card issuer from imposing declined transaction fees in connection with the credit feature, regardless of whether the declined transaction fee is imposed on the credit feature or on the asset feature of the prepaid account. For example, if the prepaid card attempts to access credit from the covered separate credit feature accessible by the hybrid prepaid-credit card and the transaction is declined, § 1026.52(b)(2)(i)(B)(*1*) prohibits the card issuer from imposing a declined transaction fee, regardless of whether the fee is imposed on the credit feature or on the asset feature of the prepaid account. Fees imposed for declining a transaction that would have only accessed the asset feature of the prepaid account and would not have accessed the covered separate credit feature accessible by the hybrid prepaid-credit are not covered by § 1026.52(b)(2)(i)(B)(*1*).

52(b)(2)(ii) Multiple Fees Based on a Single Event or Transaction

1. *Single event or transaction.* Section 1026.52(b)(2)(ii) prohibits a card issuer from imposing more than one fee for violating the terms or other requirements of an account based on a single event or transaction. If § 1026.56(j)(1) permits a card issuer to impose fees for exceeding the credit limit in consecutive billing cycles based on the same over-the-limit transaction, those fees are not based on a single event or transaction for purposes of § 1026.52(b)(2)(ii). The following examples illustrate the application of § 1026.52(b)(2)(ii). Assume for purposes of these examples that the billing cycles for a credit card account begin on the first day of the month and end on the last day of the month and that the payment due date for the account is the twenty-fifth day of the month.

i. Assume that the required minimum periodic payment due on March 25 is $35. On March 26, the card issuer has not received any payment and imposes a late payment fee. Consistent with § 1026.52(b)(1)(ii) and (b)(2)(i), the card issuer may impose an $8 late payment fee on March 26. However, § 1026.52(b)(2)(ii) prohibits the card issuer from imposing an additional late payment fee if the $35 minimum payment has not been received by a subsequent date (such as March 31).

A. On April 3, the card issuer provides a periodic statement disclosing that a $70 required minimum periodic payment is due on April 25. This minimum payment includes the $35 minimum payment due on March 25 and the $8 late payment fee imposed on March 26. On April 20, the card issuer receives a $35 payment. No additional payments are received during the April billing cycle. Section 1026.52(b)(2)(ii) does not prohibit the card issuer from imposing a late payment fee based on the consumer's failure to make the $70 required minimum periodic payment on or before April 25. Accordingly, consistent with § 1026.52(b)(1)(ii)) and (b)(2)(i), the card issuer may impose an $8 late payment fee on April 26.

B. On April 3, the card issuer provides a periodic statement disclosing that a $35 required minimum periodic payment is due on April 25. This minimum payment does not include the $35 minimum payment due on March 25 or the $8 late payment fee imposed on March 26. On April 20, the card issuer receives a $35 payment. No additional payments are received during the April billing cycle. Because the card issuer has received the required minimum periodic payment due on April 25 and because § 1026.52(b)(2)(ii) prohibits the card issuer from imposing a second late payment fee based on the consumer's failure to make the $35 minimum payment due on March 25, the card issuer cannot impose a late payment fee in these circumstances.

ii. Assume that the required minimum periodic payment due on March 25 is $35.

A. On March 25, the card issuer receives a check for $50, but the check is returned for insufficient funds on March 27. Consistent with § 1026.52(b)(1)(ii), (b)(1)(ii)(A) and (b)(2)(i)(A), the card issuer may impose a late payment fee of $8 or a returned payment fee of $25. However, § 1026.52(b)(2)(ii) prohibits the card issuer from imposing both fees because those fees would be based on a single event or transaction.

B. Same facts as paragraph ii.A. above except that that card issuer receives the $50 check on March 27 and the check is returned for insufficient funds on March 29. Consistent with § 1026.52(b)(1)(ii), (b)(1)(ii)(A) and (b)(2)(i)(A), the card issuer may impose a late payment fee of $8 or a returned payment fee of $25. However, § 1026.52(b)(2)(ii) prohibits the card issuer from imposing both fees because those fees would be based on a single event or transaction. If no payment is received on or before the next payment due date (April 25), § 1026.52(b)(2)(ii) does not prohibit the card issuer from imposing a late payment fee.

iii. Assume that the required minimum periodic payment due on July 25 is $30. On July 10, the card issuer receives a $50 payment, which is not returned. On July 20, the card issuer receives a $100 payment, which is returned for insufficient funds on July 24. Consistent with § 1026.52(b)(1)(ii)(A) and (b)(2)(i)(A), the card issuer may impose a returned payment fee of $25. Nothing in § 1026.52(b)(2)(ii) prohibits the imposition of this fee.

iv. Assume that the credit limit for an account is $1,000 and that, consistent with § 1026.56, the consumer has affirmatively consented to the payment of transactions that exceed the credit limit. On March 31, the balance on the account is $970 and the card issuer has not received the $35 required minimum periodic payment due on March 25. On that same date (March 31), a $70 transaction is charged to the account, which increases the balance to $1,040. Consistent with § 1026.52(b)(1)(ii), (b)(1)(ii)(A) and (b)(2)(i)(A), the card issuer may impose a late payment fee of $8 and an over-the-limit fee of $25. Section 1026.52(b)(2)(ii) does not prohibit the imposition of both fees because those fees are based on different events or transactions. No additional transactions are charged to the account during the March, April, or May billing cycles. If the account balance remains more than $35 above the credit limit on April 26, the card issuer may impose an over-the-limit fee of $35 pursuant to § 1026.52(b)(1)(ii)(B), to the extent consistent with § 1026.56(j)(1). Furthermore, if the account balance remains more than $35 above the credit limit on May 26, the card issuer may again impose an over-the-limit fee of $35 pursuant to § 1026.52(b)(1)(ii)(B), to the extent consistent with § 1026.56(j)(1). Thereafter, § 1026.56(j)(1) does not permit the card issuer to impose additional over-the-limit fees unless another over-the-limit transaction occurs. However, if an over-the-limit transaction occurs during the six billing cycles following the May billing cycle, the card issuer may impose an over-the-limit fee of $35 pursuant to § 1026.52(b)(1)(ii)(B).

v. Assume that the credit limit for an account is $5,000 and that, consistent with

§ 1026.56, the consumer has affirmatively consented to the payment of transactions that exceed the credit limit. On July 23, the balance on the account is $4,950. On July 24, the card issuer receives the $100 required minimum periodic payment due on July 25, reducing the balance to $4,850. On July 26, a $75 transaction is charged to the account, which increases the balance to $4,925. On July 27, the $100 payment is returned for insufficient funds, increasing the balance to $5,025. Consistent with § 1026.52(b)(1)(ii)(A) and (b)(2)(i)(A), the card issuer may impose a returned payment fee of $25 or an over-the-limit fee of $25. However, § 1026.52(b)(2)(ii) prohibits the card issuer from imposing both fees because those fees would be based on a single event or transaction.

vi. Assume that the required minimum periodic payment due on March 25 is $50. On March 20, the card issuer receives a check for $50, but the check is returned for insufficient funds on March 22. Consistent with § 1026.52(b)(1)(ii)(A) and (b)(2)(i)(A), the card issuer may impose a returned payment fee of $25. On March 25, the card issuer receives a second check for $50, but the check is returned for insufficient funds on March 27. Consistent with § 1026.52(b)(1)(ii), (b)(1)(ii)(A), (b)(1)(ii)(B), and (b)(2)(i)(A), the card issuer may impose a late payment fee of $8 or a returned payment fee of $35. However, § 1026.52(b)(2)(ii) prohibits the card issuer from imposing both fees because those fees would be based on a single event or transaction.

vii. Assume that the required minimum periodic payment due on February 25 is $100. On February 25, the card issuer receives a check for $100. On March 3, the card issuer provides a periodic statement disclosing that a $120 required minimum periodic payment is due on March 25. On March 4, the $100 check is returned to the card issuer for insufficient funds. Consistent with § 1026.52(b)(1)(ii), (b)(1)(ii)(A) and (b)(2)(i)(A), the card issuer may impose a late payment fee of $8 or a returned payment fee of $25 with respect to the $100 payment. However, § 1026.52(b)(2)(ii) prohibits the card issuer from imposing both fees because those fees would be based on a single event or transaction. On March 20, the card issuer receives a $120 check, which is not returned. No additional payments are received during the March billing cycle. Because the card issuer has received the required minimum periodic payment due on March 25 and because § 1026.52(b)(2)(ii) prohibits the card issuer from imposing a second fee based on the $100 payment that was returned for insufficient funds, the card issuer cannot impose a late payment fee in these circumstances.

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Section 1026.60—Credit and Charge Card Applications and Solicitations

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60(a)(2) Form of Disclosures; Tabular Format

1. *Location of table.*

i. *General.* Except for disclosures given electronically, disclosures in § 1026.60(b) that are required to be provided in a table must be prominently located on or with the application or solicitation. Disclosures are deemed to be prominently located, for example, if the disclosures are on the same page as an application or solicitation reply form. If the disclosures appear elsewhere, they are deemed to be prominently located if the application or solicitation reply form contains a clear and conspicuous reference to the location of the disclosures and indicates that they contain rate, fee, and other cost information, as applicable.

ii. *Electronic disclosures.* If the table is provided electronically, the table must be provided in close proximity to the application or solicitation. Card issuers have flexibility in satisfying this requirement. Methods card issuers could use to satisfy the requirement include, but are not limited to, the following examples (whatever method is used, a card issuer need not confirm that the consumer has read the disclosures):

A. The disclosures could automatically appear on the screen when the application or reply form appears;

B. The disclosures could be located on the same web page as the application or reply form (whether or not they appear on the initial screen), if the application or reply form contains a clear and conspicuous reference to the location of the disclosures and indicates that the disclosures contain rate, fee, and other cost information, as applicable;

C. Card issuers could provide a link to the electronic disclosures on or with the application (or reply form) as long as consumers cannot bypass the disclosures before submitting the application or reply form. The link would take the consumer to the disclosures, but the consumer need not be required to scroll completely through the disclosures; or

D. The disclosures could be located on the same web page as the application or reply form without necessarily appearing on the initial screen, immediately preceding the button that the consumer will click to submit the application or reply.

2. *Multiple accounts.* If a tabular format is required to be used, card issuers offering several types of accounts may disclose the various terms for the accounts in a single table or may provide a separate table for each account.

3. *Information permitted in the table. See* the commentary to § 1026.60(b), (d), and (e)(1) for guidance on additional information permitted in the table.

4. *Deletion of inapplicable disclosures.* Generally, disclosures need only be given as applicable. Card issuers may, therefore, omit inapplicable headings and their corresponding boxes in the table. For example, if no foreign transaction fee is imposed on the account, the heading *Foreign transaction* and disclosure may be deleted from the table, or the disclosure form may contain the heading *Foreign transaction* and a disclosure showing *none.* There is an exception for the grace period disclosure; even if no grace period exists, that fact must be stated.

5. *Highlighting of annual percentage rates and fee amounts.*

i. *In general. See* Samples G–10(B) and G–10(C) for guidance on providing the disclosures described in § 1026.60(a)(2)(iv) in bold text. Other annual percentage rates or fee amounts disclosed in the table may not be in bold text. Samples G–10(B) and G–10(C) also provide guidance to issuers on how to disclose the rates and fees described in § 1026.60(a)(2)(iv) in a clear and conspicuous manner, by including these rates and fees generally as the first text in the applicable rows of the table so that the highlighted rates and fees generally are aligned vertically in the table.

ii. *Maximum limits on fees.* Section 1026.60(a)(2)(iv) provides that any maximum limits on fee amounts must be disclosed in bold text. For example, assume that consistent with § 1026.52(b)(1)(ii), a card issuer's late payment fee will not exceed $8. The maximum limit of $8 for the late payment fee must be highlighted in bold. Similarly, assume an issuer will charge a cash advance fee of $5 or 3 percent of the cash advance transaction amount, whichever is greater, but the fee will not exceed $100. The maximum limit of $100 for the cash advance fee must be highlighted in bold.

iii. *Periodic fees.* Section 1026.60(a)(2)(iv) provides that any periodic fee disclosed pursuant to § 1026.60(b)(2) that is not an annualized amount must not be disclosed in bold. For example, if an issuer imposes a $10 monthly maintenance fee for a card account, the issuer must disclose in the table that there is a $10 monthly maintenance fee, and that the fee is $120 on an annual basis. In this example, the $10 fee disclosure would not be disclosed in bold, but the $120 annualized amount must be disclosed in bold. In addition, if an issuer must disclose any annual fee in the table, the amount of the annual fee must be disclosed in bold.

6. *Form of disclosures.* Whether disclosures must be in electronic form depends upon the following:

i. If a consumer accesses a credit card application or solicitation electronically (other than as described under ii. below), such as online at a home computer, the card issuer must provide the disclosures in electronic form (such as with the application or solicitation on its website) in order to meet the requirement to provide disclosures in a timely manner on or with the application or solicitation. If the issuer instead mailed paper disclosures to the consumer, this requirement would not be met.

ii. In contrast, if a consumer is physically present in the card issuer's office, and accesses a credit card application or solicitation electronically, such as via a terminal or kiosk (or if the consumer uses a terminal or kiosk located on the premises of an affiliate or third party that has arranged with the card issuer to provide applications or solicitations to consumers), the issuer may

provide disclosures in either electronic or paper form, provided the issuer complies with the timing and delivery (''on or with'') requirements of the regulation.

7. *Terminology.* Section 1026.60(a)(2)(i) generally requires that the headings, content, and format of the tabular disclosures be substantially similar, but need not be identical, to the applicable tables in appendix G–10 to part 1026; but *see* § 1026.5(a)(2) for terminology requirements applicable to § 1026.60 disclosures.

* * * * *

Rohit Chopra,

Director, Consumer Financial Protection Bureau.

[FR Doc. 2023–02393 Filed 3–28–23; 8:45 am]

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FEDERAL REGISTER

Vol. 88 Wednesday,
No. 60 March 29, 2023

Part VI

The President

Memorandum of March 20, 2023—Delegation of Authority Under Section 506(a)(1) of the Foreign Assistance Act of 1961

Federal Register
Vol. 88, No. 60
Wednesday, March 29, 2023

Presidential Documents

Title 3—

The President

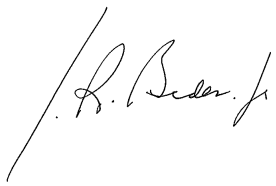
Memorandum of March 20, 2023

Delegation of Authority Under Section 506(a)(1) of the Foreign Assistance Act of 1961

Memorandum for the Secretary of State

By the authority vested in me as President by the Constitution and the laws of the United States of America, including section 621 of the Foreign Assistance Act of 1961 (FAA), I hereby delegate to the Secretary of State the authority under section 506(a)(1) of the FAA to direct the drawdown of up to $350 million in defense articles and services of the Department of Defense, and military education and training, to provide assistance to Ukraine and to make the determinations required under such section to direct such a drawdown.

You are authorized and directed to publish this memorandum in the *Federal Register*.



THE WHITE HOUSE,
Washington, March 20, 2023

[FR Doc. 2023–06671
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Federal Register

Vol. 88, No. 60

Wednesday, March 29, 2023

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LIST OF PUBLIC LAWS

Note: No public bills which have become law were received by the Office of the Federal Register for inclusion in today's **List of Public Laws**.

Last List January 23, 2023

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