ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA–HQ–OAR–2002–0083; FRL–10008–45–OAR]

RIN 2060–AT03

National Emission Standards for Hazardous Air Pollutants: Integrated Iron and Steel Manufacturing Facilities Residual Risk and Technology Review

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action finalizes the residual risk and technology review (RTR) conducted for the Integrated Iron and Steel Manufacturing Facilities source category regulated under national emission standards for hazardous air pollutants (NESHAP). The Agency found that risks due to emissions of air toxics from this source category are acceptable and that the current NESHAP provides an ample margin of safety to protect public health. Under the technology review, we found no developments in practices, processes, or control technologies that necessitate revision of the standards. In addition, we are taking final action to establish emission standards for mercury in response to a 2004 administrative petition for reconsideration which minimizes emissions by limiting the amount of mercury per ton of metal scrap used. We also are removing exemptions for periods of startup, shutdown, and malfunction (SSM) consistent with a 2008 court decision, and clarifying that the emissions standards apply at all times; adding electronic reporting of performance test results and compliance reports; and making minor corrections and clarifications for a few other rule provisions.

DATES: This final rule is effective on July 13, 2020. The incorporation by reference (IBR) of certain publications listed in the rule is approved by the Director of the Federal Register as of July 13, 2020.

ADDRESSES: The U.S. Environmental Protection Agency (EPA) has established a docket for this action under Docket ID No. EPA–HQ–OAR–2002–0083. All documents in the docket are listed on the *https://www.regulations.gov/* website. Although listed, 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 form. Publicly available docket materials are available electronically through *https://www.regulations.gov/*. Out of an abundance of caution for members of the public and our staff, the EPA Docket Center and Reading Room was closed to public visitors on March 31, 2020, to reduce the risk of transmitting COVID–19. Our Docket Center staff will continue to provide remote customer service via email, phone, and webform. There is a temporary suspension of mail delivery to the EPA, and no hand deliveries are currently accepted. For further information and updates on EPA Docket Center services and the current status, please visit us online at *https://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT: For questions about this final action, contact Dr. Donna Lee Jones, Sector Policies and Programs Division (D243–02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–5251; fax number: (919) 541–4991; and email address: *jones.donnalee@epa.gov.* For specific information regarding the risk assessment methodology, contact Ted Palma, Health and Environmental Impacts Division (C539–02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–5470; fax number: (919) 541–0840; and email address: *palma.ted@epa.gov.* For information about the applicability of the NESHAP to a particular entity, contact Maria Malave, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency, WJC South Building (Mail Code 2227A), 1200 Pennsylvania Avenue NW, Washington DC 20460; telephone number: (202) 564–7027; and email address: *malave.maria@epa.gov.*

SUPPLEMENTARY INFORMATION: *Preamble acronyms and abbreviations.* We use multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

ACI activated carbon injection
ADL above detection limit
AISI American Iron and Steel Institute
ANSI American National Standards Institute
ASME American Society of Mechanical Engineers
ASTM American Society for Testing and Materials
BDL below detection limit
BF blast furnace
BOPF basic oxygen process furnace
CAA Clean Air Act
CDX Central Data Exchange
CEDRI Compliance and Emissions Data Reporting Interface
CFR Code of Federal Regulations
COS carbonyl sulfide
DCOT Digital Camera Opacity Technique
DLL detection level limited
EAF electric arc furnace
EPA Environmental Protection Agency
ERT Electronic Reporting Tool
ESP electrostatic precipitators
HAP hazardous air pollutant(s)
HCl hydrochloric acid
HCN hydrogen cyanide
HI hazard index
HMTDS hot metal transfer, desulfurization, and skimming
HQ hazard quotient
IBR incorporation by reference
ICR information collection request
km kilometers
lbs pounds
MACT maximum achievable control technology
MIR maximum individual risk
NAICS North American Industry Classification System
NESHAP national emission standards for hazardous air pollutants
NRDC Natural Resources Defense Council
NVMSRP National Vehicle Mercury Switch Recovery Program
OAQPS Office of Air Quality Planning and Standards
OMB Office of Management and Budget
PDF portable document format
PM particulate matter
$PM_{2.5}$ particulate matter at or below 2.5 micrometers.
ppm parts per million
REL reference exposure level
RFA Regulatory Flexibility Act
RTR residual risk and technology review
SSM startup, shutdown, and malfunction
TOSHI target organ-specific hazard index
tpy tons per year
UFIP unmeasured fugitive and intermittent particulate
UMRA Unfunded Mandates Reform Act
UPL upper prediction limit
U.S. United States
VCS voluntary consensus standards
VOC volatile organic compound

Background information. On August 16, 2019, the EPA proposed the results of the RTR and various amendments for the Integrated Iron and Steel Manufacturing Facilities NESHAP (84 FR 42704). In this action, we are finalizing decisions and revisions for the rule. We summarize some of the more significant comments we timely received regarding the proposed rule and provide our responses in this preamble. A summary of all other public comments on the proposal and the EPA's responses to those comments is available in the *Summary of Public Comments and Responses for the Risk and Technology Review for Integrated Iron and Steel Manufacturing Facilities* (Docket ID No. EPA–HQ–OAR–2002–

0083). A ''redline'' (track changes) version of the regulatory language that incorporates the changes in this action is available in the docket.

Organization of this document. The information in this preamble is organized as follows:

I. General Information

A. Does this action apply to me?

Regulated entities. Categories and entities potentially regulated by this action are shown in Table 1 of this preamble.

TABLE 1—NESHAP AND INDUSTRIAL SOURCE CATEGORIES AFFECTED BY THIS FINAL ACTION

Source category	NESHAP	NAICS code [1]
Integrated Iron and Steel Manufacturing	40 CFR part 63, subpart FFFFF	331110

[1] North American Industry Classification System.

Table 1 of this preamble is not intended to be exhaustive, but rather to provide a guide for readers regarding entities likely to be affected by the final action for the source category listed. To determine whether your facility is affected, you should examine the applicability criteria in the appropriate NESHAP. If you have any questions regarding the applicability of any aspect of this NESHAP, please contact the appropriate person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section of this preamble.

B. Where can I get a copy of this document and other related information?

In addition to being available in the docket, an electronic copy of this final action will also be available on the internet. Following signature by the EPA Administrator, the EPA will post a copy of this final action at: *https://www.epa.gov/stationary-sources-air-pollution/integrated-iron-and-steel-manufacturing-national-emission-standards.* Following publication in the **Federal Register**, the EPA will post the **Federal Register** version and key technical documents at this same website.

Additional information is available on the RTR website at *https://www.epa.gov/stationary-sources-air-pollution/risk-and-technology-review-national-emissions-standards-hazardous.* This information includes an overview of the RTR program, links to project websites for the RTR source categories.

C. Judicial Review and Administrative Reconsideration

Under Clean Air Act (CAA) section 307(b)(1), judicial review of this final action is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit (the Court) by September 11, 2020. Under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce the requirements.

Section 307(d)(7)(B) of the CAA further provides that only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. This section also provides a mechanism for the EPA to reconsider the rule if the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within the period for public comment or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule. Any person seeking to make such a demonstration should

submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, WJC South Building, 1200 Pennsylvania Ave. NW, Washington, DC 20460, with a copy to both the person(s) listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave. NW, Washington, DC 20460.

II. Background

A. What is the statutory authority for this action?

Section 112 of the CAA establishes a two-stage regulatory process to address emissions of hazardous air pollutants (HAP) from stationary sources. In the first stage, we must identify categories of sources emitting one or more of the HAP listed in CAA section 112(b) and then promulgate technology-based NESHAP for those sources. ''Major sources'' are those that emit, or have the potential to emit, any single HAP at a rate of 10 tons per year (tpy) or more, or 25 tpy or more of any combination of HAP. For major sources, these standards are commonly referred to as maximum achievable control technology (MACT) standards and must reflect the maximum degree of emission reductions of HAP achievable (after considering cost, energy requirements, and non-air quality health and environmental impacts). In developing MACT standards, CAA section 112(d)(2) directs the EPA to consider the application of measures, processes, methods, systems, or techniques, including, but not limited to, those that reduce the volume of or eliminate HAP emissions through process changes, substitution of materials, or other modifications; enclose systems or processes to eliminate emissions; collect, capture, or treat HAP when released from a process, stack, storage, or fugitive emissions point; are design, equipment, work practice, or operational standards; or any combination of the above.

For these MACT standards, the statute specifies certain minimum stringency requirements, which are referred to as MACT floor requirements, and which may not be based on cost considerations. See CAA section 112(d)(3). For new sources, the MACT floor cannot be less stringent than the emission control achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than floors for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing five sources for categories or subcategories with fewer than 30 sources). In developing MACT standards, we must also consider control options that are more stringent than the floor under CAA section 112(d)(2). We may establish standards more stringent than the floor, based on the consideration of the cost of achieving the emissions reductions, any non-air quality health and environmental impacts, and energy requirements.

In the second stage of the regulatory process, the CAA requires the EPA to undertake two different analyses, which we refer to as the technology review and the residual risk review. Under the technology review, we must review the technology-based standards and revise them ''as necessary (taking into account developments in practices, processes, and control technologies)'' no less frequently than every 8 years, pursuant to CAA section 112(d)(6). Under the residual risk review, we must evaluate the risk to public health remaining after application of the technology-based standards and revise the standards, if necessary, to provide an ample margin of safety to protect public health or to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect. The residual risk review is required within 8 years after promulgation of the technology-based standards, pursuant to CAA section 112(f). In conducting the residual risk review, if the EPA determines that the current standards provide an ample margin of safety to protect public health, it is not necessary to revise the MACT standards pursuant to CAA section 112(f).[1] For more information on the statutory authority for this rule, see 84 FR 42704, August 16, 2019.

B. What is the Integrated Iron and Steel Manufacturing Facilities source category and how does the NESHAP regulate HAP emissions from the source category?

The EPA promulgated the Integrated Iron and Steel Manufacturing Facilities NESHAP on May 20, 2003 (68 FR 27646). The standards are codified at 40 Code of Federal Regulations (CFR) part 63, subpart FFFFF. The rule was amended on July 13, 2006 (71 FR 39579). The amendments added a new compliance option, revised emission limitations, reduced the frequency of repeat performance tests for certain emission units, added corrective action requirements, and clarified monitoring, recordkeeping, and reporting requirements. All documents used to develop the previous 2003 and 2006 final rules can be found in either the legacy docket, A–2000–44, or the electronic docket, EPA–HQ–OAR–2002–0083.

The Integrated Iron and Steel Manufacturing Facilities industry consists of facilities that produce steel from iron ore pellets, coke, metal scrap, and other raw materials using furnaces and other processes. The Integrated Iron and Steel Manufacturing Facilities source category includes sinter production, iron preparation, iron production, and steel production. The source category covered by this MACT standard currently includes 11 facilities.

The main sources of air toxics emissions from Integrated Iron and Steel Manufacturing Facilities are the blast furnace (BF); basic oxygen process furnace (BOPF); hot metal transfer, desulfurization, and skimming (HMTDS) operations; ladle metallurgy operations; sinter plant windbox; sinter plant discharge end; and sinter cooler. All 11 facilities have BFs, BOPFs, HMTDS operations, and ladle metallurgy operations. However, only three facilities have sinter plants. See 40 CFR 63.7852 for definitions of the emission units at integrated iron and steel manufacturing facilities.

The NESHAP includes emission limits for particulate matter (PM) and opacity standards (both of which are surrogates for PM HAP) for furnaces and sinter plants. The NESHAP also includes an emission limit for volatile organic compounds (VOC) for the sinter plant windbox exhaust stream or, as an alternative, an operating limit for the oil content of the sinter plant feedstock. The VOC and oil content limits serve as surrogates for all organic HAP emitted from the windbox.

C. What changes did we propose for the Integrated Iron and Steel Manufacturing Facilities source category in our August 16, 2019, proposal?

On August 16, 2019, the EPA published a proposed rule in the **Federal Register** for the Integrated Iron and Steel Manufacturing Facilities NESHAP, 40 CFR part 63, subpart FFFFF, that took into consideration the RTR analyses (84 FR 42704). In the proposed rule, we also proposed a numerical emissions standard for

[1] The Court has affirmed this approach of implementing CAA section 112(f)(2)(A): *NRDC* v. *EPA,* 529 F.3d 1077, 1083 (DC Cir. 2008) (''If EPA determines that the existing technology-based standards provide an 'ample margin of safety,' then the Agency is free to readopt those standards during the residual risk rulemaking.'').

mercury and an alternative compliance option based on limiting the amount of mercury in the metal scrap used by these facilities. In addition, we proposed the removal of exemptions for periods of SSM consistent with a 2008 court decision, and clarifying that the emissions standards apply at all times; the addition of electronic reporting of performance test results and compliance reports; and minor corrections and clarifications for a few other rule provisions.

D. Regulatory Background

In 2003, the EPA promulgated standards pursuant to CAA section 112(d)(2) and (3) for HAP emissions from the Integrated Iron and Steel Manufacturing Facilities source category. In 2004, the Sierra Club submitted an administrative petition for reconsideration on several issues, including adding standards for mercury, dioxins/furans, polycyclic aromatic hydrocarbons, benzene, and other organic HAP. In 2005, the EPA granted reconsideration to evaluate a possible mercury emission limit, but denied the petition for reconsideration to the extent it requested reconsideration of other issues. The Sierra Club sought judicial review of the 2003 NESHAP as well as the EPA's 2005 denial of the petition for reconsideration. In February 2010, the EPA asked the Court for a voluntary remand without vacatur of both the 2003 rule and the EPA's 2005 reconsideration denial letter. The Court granted this request and the rule and the letter denying reconsideration were remanded to the Agency.

III. What is included in this final rule?

This action finalizes the EPA's determinations pursuant to the RTR provisions of CAA section 112 for the Integrated Iron and Steel Manufacturing Facilities source category. This action also finalizes amendments to the NESHAP, including the addition of mercury emission limits, changes to SSM provisions, addition of electronic reporting, and minor corrections and clarifications to a number of other rule provisions. This final action also includes some changes to the August 2019 proposed requirements based on consideration of comments received during the public comment period described in section IV of this preamble.

A. What are the final rule amendments based on the risk review for the Integrated Iron and Steel Manufacturing Facilities source category?

The EPA proposed no changes to the Integrated Iron and Steel Manufacturing Facilities NESHAP based on the risk review conducted pursuant to CAA section 112(f). In this action, we are finalizing our proposed determination that risks from this source category are acceptable, the standards provide an ample margin of safety to protect public health, and more stringent standards are not necessary to prevent an adverse environmental effect. Section IV.A.3 of this preamble provides a summary of key comments we received regarding the risk review and our responses to those comments.

B. What are the final rule amendments based on the technology review for the Integrated Iron and Steel Manufacturing Facilities source category?

Consistent with the proposal, we determined that there are no developments in practices, processes, and control technologies that warrant revisions to the MACT standards for this source category. Therefore, we are not finalizing revisions to the MACT standards pursuant to CAA section 112(d)(6).

C. What are the final rule amendments for mercury for the Integrated Iron and Steel Manufacturing Facilities source category?

The EPA is promulgating emissions standards for mercury for the Integrated Iron and Steel Manufacturing Facilities source category pursuant to CAA sections 112(d)(2) and (3).

We are promulgating a MACT floor limit of 0.00026 pounds (lbs) of mercury per ton of scrap processed as an input-based limit for all existing BOPFs and related units at existing integrated iron and steel facilities pursuant to CAA section 112(d)(3) for existing sources. We are finalizing the mercury emission limit for existing sources as proposed. We are providing two options to demonstrate compliance with the input-based emission limit in the final rule: (1) Subsequent to an initial performance test required within 1 year of the effective date of the rule, conduct performance testing twice per permit cycle, (*i.e.,* mid-term and at initial or end term for permitted facilities, or every 2.5 years for facilities without a permit) at all BOPF-related units and convert the sum of the results to input-based units (*i.e.,* lbs of mercury per ton of scrap input) and document the results in a test report that can be submitted electronically to the delegated authority with the results (see section IV.E below); or (2) certify annually that the facility obtains all of their scrap from National Vehicle Mercury Switch Recovery Program (NVMSRP) participants (or similar program as approved by the delegated authority), or certify that the scrap processed by the facility does not contain mercury switches. Existing sources will have 1 year to comply with the mercury emission limits.

Pursuant to CAA section 112(d)(3), the standard for new sources shall not be less stringent than the emission control that is achieved in practice by the best controlled similar source. We are promulgating a new source MACT limit of 0.000081 lbs of mercury per ton of scrap processed as an input-based limit for any new BOPF and related units, or any new integrated iron and steel facility. With regard to compliance, new sources will have the same options to demonstrate compliance as existing sources. These new source limits apply to BOPFs for which construction or reconstruction commenced after August 16, 2019.

The mercury emission limits, promulgated pursuant to CAA sections 112(d)(2) and (3), have been added to Table 1 in the NESHAP. In addition, 40 CFR 63.7791 (and related sections 40 CFR 63.7820, 63.7821, 63.7825, 63.7826, 63.7833, 63.7840, and 63.7841) describes the specific compliance deadlines and compliance options related to the control of mercury. Based on consideration of public comments discussed in section IV.C below, we made some minor revisions to the proposed deadlines, compliance options, and testing requirements in 40 CFR 63.7791, 63.7820(e), 63.7821(e), 63.7825, 63.7833(h), 63.7833(i), 63.7840(e), 63.7840(f), and 63.7841(b)(9)–(11). The specific revisions are described in section IV.C.5 of this preamble.

D. What are the final rule amendments addressing emissions during periods of SSM?

In this action, we are finalizing revisions to the SSM provisions of the NESHAP to ensure that they are consistent with the Court decision in *Sierra Club* v. *EPA,* 551 F. 3d 1019 (DC Cir. 2008), which vacated two provisions that exempted sources from the requirement to comply with otherwise applicable CAA section 112(d) emission standards during periods of SSM. We also are finalizing various other changes to modify reporting and monitoring as a result of the SSM revisions. Our analyses and changes related to these issues are discussed below. In addition, we are making minor revisions to aspects of the proposed SSM requirements in response to comments. These changes are discussed below in IV.D.5.

We are finalizing the proposed revision of 40 CFR 63.7810(a) to eliminate the SSM exemption. The

revision will apply after January 11, 2021. In addition, we are updating the references in Table 4 (the General Provisions Applicability Table) of 40 CFR part 63, subpart FFFFF, including the references to 40 CFR 63.6(f)(1) and (h)(1)—the provisions vacated by *Sierra Club* v. *EPA.* Consistent with *Sierra Club* v. *EPA,* the standards in this rule will apply at all times. We are also revising 40 CFR part 63, subpart FFFFF, Table 4 to change several references related to requirements that apply during periods of SSM. For example, we are eliminating the incorporation of the General Provisions' requirement that sources develop an SSM plan. We also are eliminating and revising certain recordkeeping and reporting requirements related to the SSM exemption.

The EPA has attempted to ensure that the provisions we eliminated are inappropriate, unnecessary, or redundant in the absence of the SSM exemption. In promulgating the standards in this rule, the EPA has taken into account startup and shutdown periods and, for the reasons explained below, has not proposed alternate standards for those periods. The integrated iron and steel industry has not identified (and there are no data indicating) any specific problems with removing the SSM provisions.

1. 40 CFR 63.7810(d) General Duty

We are promulgating revisions to the General Provisions table (Table 4) of 40 CFR part 63, subpart FFFFF by adding an entry for 40 CFR 63.6(e)(1)(i), which describes the general duty to minimize emissions, and including a ''No'' for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, we include ''Yes on or before January 11, 2021 and No thereafter.'' in column 3. Some of the language in that section is no longer necessary or appropriate in light of the elimination of the SSM exemption. We are instead adding general duty regulatory text at 40 CFR 63.7810(d) that reflects the general duty to minimize emissions while eliminating the reference to periods covered by an SSM exemption. The current language in 40 CFR 63.6(e)(1)(i) characterizes what the general duty entails during periods of SSM. With the elimination of the SSM exemption, there is no need to differentiate between normal operations, startup and shutdown, and malfunction events in describing the general duty. Therefore, the language the EPA is promulgating for 40 CFR 63.7810(d) does not include that language from 40 CFR 63.6(e)(1) after January 11, 2021 for each such source, and after July 13, 2020 for new and reconstructed sources for which construction or reconstruction commenced after August 16, 2019.

We are also finalizing revisions to the General Provisions table (Table 4) of 40 CFR part 63, subpart FFFFF by adding an entry for 40 CFR 63.6(e)(1)(ii) and including ''No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019.'' For all other affected sources, we are adding ''Yes, on or before January 11, 2021 and No thereafter.'' in column 3. 40 CFR 63.6(e)(1)(ii) imposes requirements that are not necessary with the elimination of the SSM exemption or are redundant with the general duty requirement being added at 40 CFR 63.7810(d).

2. SSM Plan

We are finalizing revisions to the General Provisions table (Table 4) of 40 CFR part 63, subpart FFFFF by adding an entry for 40 CFR 63.6(e)(3) and including ''No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes, on or before January 11, 2021 and No thereafter.'' in column 3. Generally, the paragraphs under 40 CFR 63.6(e)(3) require development of an SSM plan and specify SSM recordkeeping and reporting requirements related to the SSM plan. As the EPA is removing the SSM exemptions, the affected units will be subject to an emission standard during such events. The applicability of a standard during such events will ensure that sources have ample incentive to plan for and achieve compliance and, thus, the SSM plan requirements are no longer necessary. For that same reason, we are revising 40 CFR 63.7810(c) to remove the SSM plan requirement 180 days after publication in the **Federal Register** for sources that commenced construction or reconstruction on or before August 16, 2019, and to remove the SSM plan requirement upon publication in the **Federal Register** for all sources that commenced construction or reconstruction after August 16, 2019.

3. Compliance With Standards

We are finalizing revisions to the General Provisions table (Table 4) of 40 CFR part 63, subpart FFFFF by adding an entry for 40 CFR 63.6(f)(1) and including ''No'' in column 3. The exemption at 40 CFR 63.6(f)(1), which exempted sources from non-opacity standards during periods of SSM, was vacated by the Court in *Sierra Club* v. *EPA,* as discussed above.

We also are finalizing revisions to the General Provisions table (Table 4) of 40 CFR part 63, subpart FFFFF by adding an entry for 40 CFR 63.6(h)(1) and including ''No'' in column 3. The exemption at 40 CFR 63.6(h)(1), which exempted sources from opacity standards during periods of SSM, was also vacated by the Court in *Sierra Club* v. *EPA.* Consistent with *Sierra Club* v. *EPA,* the EPA is finalizing revisions to standards in this rule to ensure that a CAA section 112 standard applies at all times.

4. 40 CFR 63.7822 and 63.7823 Performance Testing

We are finalizing revisions to the General Provisions table (Table 4) of 40 CFR part 63, subpart FFFFF by adding an entry for 40 CFR 63.7(e)(1) and including ''No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes, on or before January 11, 2021 and No thereafter.'' in column 3. In section 40 CFR 63.7(e)(1), performance testing requirements are described. The EPA is instead adding a performance testing requirement at 40 CFR 63.7822(a) and 63.7823(a). The performance testing requirements we are adding differ from the General Provisions performance testing provisions in several respects. The regulatory text we are adding does not include the language in 40 CFR 63.7(e)(1) that restated the SSM exemption and precluded SSM periods from being considered ''representative'' for purposes of performance testing. In 40 CFR 63.7(e)(1), performance tests conducted under this subpart should not be conducted during SSM because conditions during SSM are often not representative of normal operating conditions. During SSM periods, both emission and flow rate profiles can be highly variable and unsuitable for the emission measurement methods. The EPA is promulgating language that requires the owner or operator to record the process information that is necessary to document operating conditions during the test and include in this record an explanation to support that such conditions represent normal operation. In 40 CFR 63.7(e), the owner or operator is required to make available to the Administrator on request such records ''as may be necessary to determine the condition of the performance test,'' but does not specifically require the information to be recorded. The regulatory text the EPA is adding to this provision builds onto that requirement and makes explicit the requirement to record the information.

5. Monitoring

We are finalizing revisions to the General Provisions table (Table 4) of 40 CFR part 63, subpart FFFFF by adding entries for 40 CFR 63.8(c)(1)(i) and (iii) and including ''No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes, on or before January 11, 2021 and No thereafter.'' in column 3. The cross-references to the general duty and SSM plan requirements in those subparagraphs are not necessary in light of other requirements of 40 CFR 63.8 that require good air pollution control practices (40 CFR 63.8(c)(1)) and that set out the requirements of a quality control program for monitoring equipment (40 CFR 63.8(d)).

We are finalizing revisions to the General Provisions table (Table 4) of 40 CFR part 63, subpart FFFFF by adding an entry for 40 CFR 63.8(d)(3) and including ''No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes, on or before January 11, 2021 and No thereafter.'' in column 3. The final sentence in 40 CFR 63.8(d)(3) refers to the General Provisions' SSM plan requirement which is no longer applicable. The EPA is adding to the rule at 40 CFR 63.7842(b)(3) text that is identical to 40 CFR 63.8(d)(3) except that the final sentence is replaced with the following sentence: ''The program of corrective action should be included in the plan required under 40 CFR 63.8(d)(2).''

6. 40 CFR 63.7842 Recordkeeping

We are finalizing revisions to the General Provisions table (Table 4) of 40 CFR part 63, subpart FFFFF by adding an entry for 40 CFR 63.10(b)(2)(i) and including ''No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes, on or before January 11, 2021 and No thereafter.'' in column 3. 40 CFR 63.10(b)(2)(i) describes the recordkeeping requirements during startup and shutdown. These recording provisions are no longer necessary because the EPA is requiring that recordkeeping and reporting applicable to normal operations would apply to startup and shutdown. In the absence of special provisions applicable to startup and shutdown, such as a startup and shutdown plan, there is no reason to retain additional recordkeeping for startup and shutdown periods.

We are finalizing revisions to the General Provisions table (Table 4) of 40 CFR part 63, subpart FFFFF by adding an entry for 40 CFR 63.10(b)(2)(ii) and including ''No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes, on or before January 11, 2021 and No thereafter.'' in column 3. 40 CFR 63.10(b)(2)(ii) describes the recordkeeping requirements during a malfunction. The EPA is adding such requirements to 40 CFR 63.7842. The regulatory text we are adding differs from the General Provisions it is replacing in that the General Provisions requires the creation and retention of a record of the occurrence and duration of each malfunction of process, air pollution control, and monitoring equipment. The EPA is finalizing this requirement to apply to any failure to meet an applicable standard and is requiring the source to record the date, time, and duration of the failure rather than the ''occurrence.'' The EPA is also adding to 40 CFR 63.7842(a)(3) a requirement that sources keep records that include a list of the affected sources or equipment and actions taken to minimize emissions, an estimate of the quantity of each regulated pollutant emitted over the standard for which the source failed to meet the standard, and a description of the method used to estimate the emissions. Examples of such methods would include product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters. The EPA is requiring that sources keep records of this information to ensure that there is adequate information to allow the EPA to determine the severity of any failure to meet a standard, and to provide data that may document how the source met the general duty to minimize emissions when the source has failed to meet an applicable standard.

We are finalizing revisions to the General Provisions table (Table 4) of 40 CFR part 63, subpart FFFFF by adding an entry for 40 CFR 63.10(b)(2)(iv) and including ''No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes, on or before January 11, 2021 and No thereafter.'' in column 3. When applicable, the provision requires sources to record actions taken during SSM events when actions were inconsistent with their SSM plan. The requirement is no longer appropriate because SSM plans would no longer be required. The requirement previously applicable under 40 CFR 63.10(b)(2)(iv) to record actions to minimize emissions and record corrective actions during SSM is now applicable at all times by 40 CFR 63.7842(a)(4).

We are finalizing revisions to the General Provisions table (Table 4) of 40 CFR part 63, subpart FFFFF by adding an entry for 40 CFR 63.10(b)(2)(v) and including ''No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes, on or before January 11, 2021 and No thereafter.'' in column 3. When applicable, the provision requires sources to record actions taken during SSM events to show that actions taken were consistent with their SSM plan. The requirement is no longer appropriate because SSM plans would no longer be required.

We are finalizing revisions to the General Provisions table (Table 4) of 40 CFR part 63, subpart FFFFF by adding an entry for 40 CFR 63.10(c)(15) and including ''No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes, on or before January 11, 2021 and No thereafter.'' in column 3. Because the SSM plan requirement is being eliminated, 40 CFR 63.10(c)(15) no longer applies. When applicable, the provision allowed an owner or operator to use the affected source's SSM plan or records kept to satisfy the recordkeeping requirements of the SSM plan, specified in 40 CFR 63.6(e), to also satisfy the requirements of 40 CFR 63.10(c)(10) through (12). The EPA is eliminating this requirement because SSM plans would no longer be required, and, therefore, 40 CFR 63.10(c)(15) no longer serves any useful purpose for affected units.

7. 40 CFR 63.7841 Reporting

We are finalizing revisions to the General Provisions table (Table 4) of 40 CFR part 63, subpart FFFFF by adding an entry for 40 CFR 63.10(d)(5)(i) and including ''No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes, on or before January 11, 2021 and No thereafter.'' in column 3. 40 CFR 63.10(d)(5)(i) describes the reporting requirements for startups, shutdowns, and malfunctions. To replace the General Provisions reporting requirement, the EPA is adding reporting requirements to 40 CFR 63.7841(b)(4). The replacement language differs from the General Provisions requirement in that it eliminates

periodic SSM reports as a stand-alone report. We are adding language that requires sources that fail to meet an applicable standard at any time to report the information concerning such events in the semiannual reporting period compliance report already required under this rule. We are requiring the report to contain the date, time, duration, and the cause of such events (including unknown cause, if applicable), a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions. Examples of such methods would include product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters. The EPA is promulgating this requirement to ensure that there is adequate information to determine compliance, to allow the EPA to determine the severity of the failure to meet an applicable standard, and to provide data that may document how the source met the general duty to minimize emissions during a failure to meet an applicable standard.

We are no longer requiring owners or operators to determine whether actions taken to correct a malfunction are consistent with an SSM plan, because plans are no longer required. These final amendments, therefore, eliminate from this section the cross-reference to 40 CFR 63.10(d)(5)(i) that contains the description of the previously required SSM report format and submittal schedule. These specifications are no longer necessary because the SSM events would be reported in otherwise required periodic reports with similar format and submittal requirements.

We are finalizing revisions to the General Provisions table (Table 4) of 40 CFR part 63, subpart FFFFF by adding an entry for 40 CFR 63.10(d)(5)(ii) and including ''No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes, on or before January 11, 2021 and No thereafter.'' in column 3. 40 CFR 63.10(d)(5)(ii) describes an immediate report for startups, shutdown, and malfunctions when a source failed to meet an applicable standard but did not follow the SSM plan. We are no longer requiring owners and operators to report when actions taken during an SSM event were not consistent with an SSM plan, because such plans are no longer required.

E. What are the final rule amendments addressing electronic reporting?

Through this final rule, the EPA is requiring that owners and operators of integrated iron and steel manufacturing facilities submit the required electronic copies of performance test results and semiannual reports through the EPA's Central Data Exchange (CDX) using the Compliance and Emissions Data Reporting Interface (CEDRI). A description of the electronic data submission process is provided in the memorandum titled *Electronic Reporting Requirements for New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Rules* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0909).

This final rule requires that performance test results collected using test methods that are supported by the EPA's Electronic Reporting Tool (ERT), as listed on the ERT website at the time of the test, be submitted in the format generated through the use of the ERT, and that other performance test results be submitted in portable document format (PDF) using the attachment module of the ERT. Similarly, performance evaluation results of continuous monitoring systems that measure relative accuracy test audit pollutants that are supported by the ERT at the time of the test, should be submitted in the format generated through the use of the ERT; other performance evaluation results should be submitted in PDF using the attachment module of the ERT. For semiannual compliance reports, the final rule requires that owners and operators use the appropriate spreadsheet template to submit information to CEDRI. The draft template for these reports is included in the docket for this rulemaking and the final template will be available on the CEDRI homepage (*https://www.epa.gov/electronic-reporting-air-emissions/cedri*).

Additionally, the EPA has identified two broad circumstances in which electronic reporting extensions may be provided. In both circumstances, the decision to accept the claim of needing additional time to report is within the discretion of the Administrator, and reporting should occur as soon as possible. The EPA is providing these potential extensions to protect owners and operators from noncompliance in cases where they cannot successfully submit a report by the reporting deadline for reasons outside of their control. The situation where an extension may be warranted due to outages of the EPA's CDX or CEDRI which precludes an owner or operator from accessing the system and submitting required reports is addressed in 40 CFR 63.7841(e). The situation where an extension may be warranted due to a force majeure event, which is defined as an event that would be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents an owner or operator from complying with the requirement to submit a report electronically as required by this rule is addressed in 40 CFR 63.7841(f). Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazards beyond the control of the facility.

The electronic submittal of the reports addressed in this rulemaking will increase the usefulness of the data contained in those reports, is in keeping with current trends in data availability and transparency, will further assist in the protection of public health and the environment, will improve compliance by facilitating the ability of regulated facilities to demonstrate compliance with requirements, and by facilitating the ability of delegated state, local, tribal, and territorial air agencies and the EPA to assess and determine compliance, and will ultimately reduce burden on regulated facilities, delegated air agencies, and the EPA. Electronic reporting also eliminates paper-based, manual processes, thereby saving time and resources, simplifying data entry, eliminating redundancies, minimizing data reporting errors, and providing data quickly and accurately to the affected facilities, air agencies, the EPA, and the public. Moreover, electronic reporting is consistent with the EPA's plan to implement Executive Order 13563 and is in keeping with the EPA's Agency-wide policy developed in response to the White House's Digital Government Strategy. For more information on the benefits of electronic reporting, see the memorandum titled *Electronic Reporting Requirements for New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Rules* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0909).

We are also making minor revisions to aspects of the proposed electronic reporting requirements in response to comments. These rule changes are discussed in section IV.E.5 of this preamble.

F. What other changes are being made to the NESHAP?

1. IBR Under 1 CFR Part 51

We are promulgating regulatory text that includes IBR. In accordance with requirements of 1 CFR 51.5, the EPA is incorporating by reference the three documents listed below and amending 40 CFR 63.14 to identify the provisions for which these documents are IBR approved for this rule:

- ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], issued August 31, 1981, IBR approved for 40 CFR 63.7822(b), 63.7824(e) and 63.7825(b). This method determines quantitatively the gaseous constituents of exhausts resulting from stationary combustion sources. The gases addressed in the method are oxygen, carbon dioxide, carbon monoxide, nitrogen, sulfur dioxide, sulfur trioxide, nitric oxide, nitrogen dioxide, hydrogen sulfide, and hydrocarbons. The method is approved for this rule for oxygen and carbon dioxide measurements, with the caveats described in section VI.J of this preamble.
- ASTM D7520–16, Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere, approved April 1, 2016, IBR approved for 40 CFR 63.7823(c), 63.7823(d), 63.7823(e), and 63.7833(g). This method describes procedures to determine the opacity of a plume, using digital imagery and associated hardware and software, where opacity is caused by PM emitted from a stationary point source in the outdoor ambient environment. The opacity of emissions is determined by the application of a digital camera opacity technique (DCOT) that consists of a digital still camera, analysis software, and the output function's content to obtain and interpret digital images to determine and report plume opacity. The method is approved for this rule with caveats described in section VI.J of this preamble.
- Fabric Filter Bag Leak Detection Guidance, EPA–454/R–98–015, Office of Air Quality Planning and Standards (OAQPS), September 1997, IBR approved for 40 CFR 63.7831(f). This document provides guidance on the use of triboelectric monitors as fabric filter bag leak detectors. The document includes fabric filter and monitoring system descriptions; guidance on monitor selection, installation, setup, adjustment, and operation; and quality assurance procedures.

2. Technical and Editorial Rule Corrections and Clarifications

In this final rule, the EPA is making a number of technical and editorial changes to the NESHAP to reflect corrections and clarifications. These revisions are described in section IV.G.3 of this preamble.

G. What are the effective and compliance dates of the standards?

This final rule is effective on July 13, 2020. Because most of these amendments provide corrections and clarifications to the current rule and do not impose new requirements on the industry, existing sources are required to comply with the amendments 180 days after publication of the final rule, except where indicated otherwise, as in the provisions for mercury. Sources constructed on or before August 16, 2019 must comply with the mercury emission limits within 1 year of publication of the final rule. New BOPF or new facilities constructed or reconstructed after August 16, 2019, must comply with the new source mercury emission limit on the effective date of the final rule, or upon startup, whichever is later. Electronic reporting for the compliance report is required beginning either 180 days after promulgation of the final rule or 180 days after the spreadsheet template is available in CEDRI, whichever is later. Electronic reporting of performance tests is required upon promulgation of the final rule.

IV. What is the rationale for our final decisions and amendments for the Integrated Iron and Steel Manufacturing Facilities source category?

For each significant issue, this section provides a description of what we proposed and what we are finalizing for each issue, the EPA's rationale for the final decisions and amendments, a summary of key comments and responses, and impact on final rule language, if applicable. For all comments not discussed in this preamble, comment summaries and the EPA's responses can be found in the *Summary of Public Comments and Responses for the Risk and Technology Review for Integrated Iron and Steel Manufacturing Facilities* document, which is available in the docket.

A. Residual Risk Review for the Integrated Iron and Steel Manufacturing Facilities Source Category

1. What did we propose pursuant to CAA section 112(f) for the Integrated Iron and Steel Manufacturing Facilities source category?

On August 16, 2019 (84 FR 42704), the EPA proposed that risks posed by emissions from the source category are acceptable, that the current NESHAP provides an ample margin of safety to protect public health, and that additional standards are not necessary to prevent an adverse environmental effect. The estimated cancer risks were below the presumptive limit of acceptability and the noncancer risk results indicate there is minimal likelihood of adverse noncancer health effects due to HAP emissions from this source category. The proposed decision on ample margin of safety was based on weighing factors relevant to this particular source category, including the risk posed by point sources and the costs and cost-effectiveness of additional controls to reduce risk further, as well as uncertainties in the assessment of unmeasured fugitive and intermittent particulate (UFIP),[2] including uncertainties in the baseline emissions estimates used in estimating risk posed by UFIP emissions, the costs and effectiveness of the work practices we considered to reduce these emissions, and the amount of risk reduction that could be achieved with the work practices.

The EPA sets standards under CAA section 112(f)(2) using ''a two-step standard-setting approach, with an analytical first step to determine an 'acceptable risk' that considers all health information, including risk estimation uncertainty, and includes a presumptive limit on maximum individual risk (MIR) of approximately 1-in-10 thousand.'' (54 FR 38045, September 14, 1989). In the proposal, the EPA estimated risks based on actual and allowable emissions from integrated iron and steel sources, and we considered these in determining acceptability. A more thorough discussion of the risk assessment is included in the *Residual Risk Assessment for the Integrated Iron and Steel Manufacturing Source Category in Support of the Risk and Technology Review 2020 Final Rule* document, available in the docket for this rule

[2] The UFIP sources are BF bleeder valve unplanned openings (also known as slips), BF bleeder valve planned openings, BF bell leaks, BF casthouse fugitives, BF iron beaching, BF slag handling and storage operations, and BOPF shop fugitives.

(Docket ID No. EPA–HQ–OAR–2002–0083).

In the proposed rule, as presented in Table 2 below, based on modeling point source actual emissions from the source category for all 11 facilities, we estimated inhalation cancer risk to the individual most exposed was 10-in-1 million. The estimated incidence of cancer due to inhalation exposures due to the point sources for the source category was 0.03 excess cancer cases per year, or one excess case every 33 years. We estimated that approximately 64,000 people face an increased cancer risk greater than or equal to 1-in-1 million due to inhalation exposure to HAP emissions from the point sources for this source category. The Agency estimated that the maximum chronic noncancer target organ-specific hazard index (TOSHI) from inhalation exposure due to point sources for this source category was 0.1. In the screening assessment of worst-case acute inhalation impacts due to point sources, we estimated a maximum hazard quotient (HQ) of 0.3 (due to arsenic) based on the reference exposure level (REL). With regard to multipathway human health risks, we estimated the cancer risk for the highest exposed individual to be 40-in-1 million (due to dioxins/furans emissions from sinter plants) and the maximum chronic noncancer hazard quotient (HQ) to be less than 1 for all the persistent and bioaccumulative HAP. Based on the results of the environmental risk screening analysis, we do not expect an adverse environmental effect as a result of HAP emissions from point source emissions from this source category.

As shown in Table 2, based on allowable emissions, the estimated inhalation cancer risk to the individual most exposed from point sources in the source category is 70-in-1 million and the estimated incidence of cancer due to inhalation exposures to these allowable emissions is 0.3 excess cancer cases per year, or one excess case every 3 years. An estimated 6 million people would face an increased cancer risk greater than or equal to 1-in-1 million due to inhalation exposure to allowable HAP emissions from this source category. The maximum chronic noncancer TOSHI from inhalation exposure is 0.9 based on allowable emissions.

TABLE 2—RISK SUMMARY FOR THE INTEGRATED IRON AND STEEL MANUFACTURING SOURCE CATEGORY POINT SOURCE EMISSIONS

Emissions	Inhalation cancer risk		Population cancer risk			Max chronic individual noncancer risk		Max acute noncancer risk		Multipathway assessment
	Maximum individual risk (in 1 million)	Risk driver	Cancer incidence (cases per year)	≥10 in 1 million	≥1 in 1 million	Hazard index (TOSHI)	Risk driver	Hazard quotient	Risk driver	Risk driver and health endpoints
Baseline Actual Emissions: Source Category.	10	chromium (VI) compounds.	0.03	60	64,000	0.1 (developmental).	arsenic and lead compounds.	0.7	arsenic compounds.	Cancer (dioxins/furans) site-specific MIR = 40-in-1 million; Noncancer (mercury) site-specific HQ = 0.5
Baseline Allowable Emissions: Source Category.	70	arsenic compounds, chromium (VI) compounds, nickel compounds, cadmium compounds.	0.3	79,500	5,900,000	0.9 (developmental).	arsenic and lead compounds.	.....	.....	

We also estimated risk posed by both point source and nonpoint (*i.e.,* UFIP) emissions from an actual facility in the category that we selected as an example facility. Of the facilities in the category, the example facility has the largest production capacity, the highest estimated HAP emissions from steel-making sources (*i.e.,* facility emissions not including sinter plant emissions), and the highest estimated UFIP emissions. The example facility is also the facility with the highest potential population exposure (4 million people within 50 kilometers of the facility). The EPA conducted a risk assessment using conservative emissions estimates to evaluate the potential exposures and risks due to all the emissions for this one example facility. We performed the risk analysis for the example facility to assess the potential change in the magnitude of risk when risk from UFIP emissions is added to risk posed by point-source emissions. The estimated risks due to actual emissions from nonpoint (*i.e.,* UFIP) and point sources for the example facility are presented in Table 3.

When UFIP sources were included in the EPA's risk analysis, the estimated HAP emissions increased from 3 tpy to 53 tpy and the estimated inhalation cancer risk to the individual most exposed to actual emissions from the example facility increased from 2-in-1 million to 20-in-1 million. The estimated population with risks greater than or equal to 1-in-1 million increased from 3,000 to 4,000,000, and the population with risks greater than or equal to 10-in-1 million increased from 0 to 9,000. The maximum chronic noncancer TOSHI from inhalation exposures remained at less than 1, but the acute HQ increased from 0.3 to 3 based on the REL (for arsenic). The two UFIP sources that are the greatest contributors to the inhalation risk in terms of MIR were the BF casthouse and BOPF shop, which are currently regulated by opacity limits in the rule. Based on allowable emissions, the estimated inhalation cancer risk to the individual most exposed increased from 30-in-1 million to 50-in-1 million with the inclusion of emissions from UFIP sources.

There is considerable uncertainty in the estimated risk due to UFIP sources for the example facility due to the uncertainties in the estimated UFIP emissions and release parameters. Nevertheless, if UFIP emissions were quantified for the entire source category, the source category risks and the number of individuals with cancer risk exceeding 1-in-1 million would be expected to increase for each facility.

Although it is problematic to estimate from our risk assessment results (shown in Tables 2 and 3) what the increase in risk might be for each facility in the entire industry without quantifying UFIP emissions for each facility, based upon results from the example facility, we concluded that it is likely that the cancer MIR based on allowable emissions at all other facilities would be less than 90-in-1 million (70-in-1 million from point sources and up to 20-in-1 million from UFIP emissions) and the maximum chronic noncancer HI would be less than 1. For information on the development of emission estimates from the example facility, see the memorandum titled *Development of Emissions Estimates for Fugitive or Intermittent HAP Emission Sources for an Example Integrated Iron and Steel Facility for Input to the RTR Risk Assessment* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0956), hereafter called the ''Example Facility memorandum.''

TABLE 3—INHALATION RISK RESULTS—EXAMPLE FACILITY WITH AND WITHOUT UFIP EMISSIONS

Emissions	Example facility sources	Inhalation chronic cancer				Inhalation chronic noncancer		Acute noncancer	
		MIR (in 1–M)	Incidence	Pop >1-in-1 million	Pop >10-in-1 million	HI (TOSHI)	Target organ	HQ	Pollutant
Actual	Point Sources *Only*	2	0.010	3,000	0	0.03	Developmental	0.3	Arsenic
	Point Sources & UFIP Emissions	20	0.12	4,000,000	9,000	0.3	Developmental	3	Arsenic
Allowables	Point Sources *Only*	30	0.13	4,000,000	11,000	0.3	Developmental		
	Point Sources & UFIP Emissions	50	0.24	4,000,000	90,000	0.7	Developmental		

Although we did not assess multipathway risks for the example facility used to represent a ''worst case'' for UFIP emissions, the highest exposed individual for dioxins/furans in the point source modeling was not due to the example facility. Furthermore, none of the UFIP sources are known to emit dioxins/furans emissions. In addition, because mercury is emitted as a gas, UFIP emissions, which are PM, did not add to mercury emissions. See the Example Facility memorandum cited above for more information on the estimated emissions from the model facility.

Furthermore, it is important to note that after the EPA completed its risk modeling, the American Iron and Steel Institute (AISI) provided additional, more recent test data for the example facility that suggest arsenic emissions are lower than the level we estimated based on the 2011 information collection request (ICR) data that we used in our analysis (Docket ID Item No. EPA–HQ–OAR–2002–0083–0804). The AISI also conducted their own risk assessment using the new data and using the same modeling methodology that the EPA uses. The results presented by AISI (described in the EPA's proposal preamble at 84 FR 42704) indicate the MIR when the UFIP emissions are included could be about 60 percent lower than the estimated value in the EPA's risk characterization presented above (*i.e.,* 8-in-1 million compared to the EPA's estimate of 20-in-1 million) and that population risks also could be substantially lower than the EPA's estimate presented above in this preamble, with an estimated 500,000 people with risks greater than or equal to 1-in-1 million compared to the estimate of 4,000,000 in the EPA's risk characterization. Therefore, we conclude the emissions used in our risk assessment are likely conservative (upper-end) estimates.

In determining whether risks are acceptable for this source category, the EPA considered all available health information and risk estimation uncertainty that includes the uncertainty in the data from both point sources and the estimated UFIP emissions. (See proposal at 84 FR 42716, section III.C.8, *How do we consider uncertainties in risk assessment*?) A more thorough discussion of the uncertainties is included in the *Residual Risk Assessment for the Integrated Iron and Steel Manufacturing Source Category in Support of the Risk and Technology Review 2020 Final Rule,* available in the docket for this rule (Docket ID No. EPA–HQ–OAR–2002–0083).

The risk results indicate that the inhalation cancer risks to the individual most exposed could be more than 70-in-1-million but less than 90-in-1 million, as a worst case, based on the highest allowable emissions due to point sources among the industry facilities plus the conservative estimate of risk from UFIP emissions, and also considering the uncertainties in the example facility analysis as discussed above and in the proposal (84 FR 42716). This worst case risk is still below the presumptive limit of 100-in-1 million risk. In addition, there were no facilities with an estimated maximum chronic noncancer HI greater than or equal to 1 from point sources. The maximum acute HQ for all pollutants was less than 1 when we only considered point source emissions, and up to 3 based on the REL for arsenic when including exposures to estimated emissions from UFIP emissions at the example facility.

For the acute screening analyses, to better characterize the potential health risks associated with estimated worst-case acute exposures to HAP, the EPA examined a wider range of acute health metrics, where available, including the California Reference Exposure Levels (RELs) and emergency response levels, such as Acute Exposure Guideline Levels and Emergency Response Planning Guidelines. This is in acknowledgement that there are generally more data gaps and uncertainties in acute reference values than there are in chronic reference values. The maximum acute HQ is estimated to be no more than 3 from arsenic emissions, based on the acute REL. However, for arsenic, the only available acute health metric is the REL. By definition, the acute REL represents a health-protective level of exposure, with effects not anticipated below those levels, even for repeated exposures; however, the level of exposure that would cause health effects is not specifically known. As the exposure concentration increases above the acute REL, the potential for effects increases. In addition, the acute screening assessment includes the conservative (health protective) assumptions that every process releases its peak hourly emissions at the same hour, that the near worst-case dispersion conditions occur at that same hour, and that an individual is present at the location of maximum concentration for that hour. Further, the HQ value was not refined to an off-site location, which, in many cases, may be significantly lower than that estimated at an on-site receptor. Thus, because of the conservative nature of the acute inhalation screening assessment as well as the conservative bias in the UFIP emission estimates, the EPA anticipates that emissions from the Integrated Iron and Steel Manufacturing Facilities source category pose minimal risk of adverse acute health effects.

As part of the ample margin of safety analysis performed for the proposal, we

evaluated additional potential technologies for controlling point source emissions to further reduce risk from these sources, taking into consideration costs, energy, safety, and other relevant factors. We evaluated the installation of a wet electrostatic precipitator (ESP) on the exhaust of the current air pollution control devices for the BF casthouse primary units to reduce chromium VI and arsenic emissions, respectively. We also evaluated the installation of activated carbon injection (ACI) systems onto current control devices for the sinter plant windbox to reduce emissions of dioxins/furans. Details of the estimated costs and emissions reductions associated with these control measures can be found in the memorandum titled *Ample Margin of Safety for Point Sources in the II&S Industry* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0952).

We estimated the MIR could be reduced by 95, 95, and 98 percent, respectively, from 10-in-1 million, 70-in-1 million, and 40-in-1 million for BF chromium actual emissions, BOPF arsenic allowable emissions, and sinter plant dioxins/furans actual emissions as toxic equivalents, respectively. However, we did not propose any of these control scenarios because of the relatively high capital and annualized costs compared to a relatively low amount of emissions reduced. Cost-effectiveness estimates were determined to be $1.9 billion/ton ($940,000/lb), $46 million/ton ($23,000/lb), and $188 billion/ton ($94 million/lb) for BF chromium, BOPF arsenic, and sinter plant dioxins/furans, respectively. None of these options were considered cost effective.

We also considered potential work practices to reduce UFIP emissions as part of the ample margin of safety analysis. The EPA identified work practices that could achieve HAP reductions from the seven UFIP sources, such as more frequent measurements (*e.g.,* opacity, internal furnace conditions) to identify problems earlier, increased maintenance, applying covers on equipment, developing operating plans to minimize emissions, optimizing positioning of ladles with respect to hood faces, and earlier repair of equipment. We estimated these work practices would achieve a range of 50- to 90-percent reduction in UFIP emissions (*i.e.,* control efficiency) from these sources, based on EPA staff judgment as to the potential effectiveness of the work practices. In analyzing post-control scenarios, we assumed the work practices would achieve 70-percent reduction in emissions (the midpoint between 50 and 90 percent), corresponding to an estimate of 185 tpy of HAP reduced, assuming work practices were required for all seven UFIP sources. A description of the uncontrolled UFIP emissions and an estimate of emissions after implementation of work practices are provided in the Example Facility memorandum cited above.

To estimate the risk reductions that could be achieved from the UFIP sources via work practices, we developed a model input file to reflect the estimated emissions reductions that would be achieved under two control options and modeled two post-control scenarios for the example facility to estimate risk reductions. We analyzed two options: Option 1 would establish work practice standards for two of the UFIP sources (BF casthouse fugitives and BOPF shop fugitives), which contribute about 70 percent of the MIR and are currently regulated via opacity standards; Option 2 would establish work practice standards for all seven of the UFIP sources. Potential work practices for the two UFIP sources in Option 1 were the same in Option 2. We assumed a control efficiency of 70 percent for the work practices as the average of an assumed range of 50-percent to 90-percent control efficiency for the work practices. Details of the work practices for UFIP and estimated costs of the work practices can be found in the memorandum titled *Ample Margin of Safety for Nonpoint Sources in the II&S Industry* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0953).

Based on this modeling assessment, we estimated Option 1 would reduce the MIR from 20-in-1 million to about 10-in-1 million for the example facility, the estimated population with risks greater than or equal to 1-in-1 million would decrease from 4,000,000 to 1,500,000, and the estimated population with risks greater than or equal to 10-in-1 million would decrease from 9,000 to 800. In addition, the maximum acute HQ would decrease from 3 to 2. This option also would achieve reductions in PM with a diameter of 2.5 micrometers or less ($PM_{2.5}$). For Option 2, we estimated the work practices would reduce the MIR from 20-in-1 million to about 9-in-1 million for the example facility, the estimated population with risks greater than or equal to 1-in-1 million would decrease from 4,000,000 to 800,000, and the estimated population with risks greater than or equal to 10-in-1 million would decrease from 9,000 to 0. Also, the maximum acute HQ would decrease from 3 to 0.9. This option would also achieve reductions in $PM_{2.5}$.

We estimated the total capital costs of Option 1 for the source category would be approximately $1.4 million, annualized costs would be approximately $1.7 million per year, and HAP reductions would be approximately 173 tpy of HAP, which corresponds to a cost-effectiveness value of approximately $10,000/ton. This estimate was based on cost estimates for individual emission units that were projected to the entire industry based on the number of units of each type at each facility. For Option 2 for the source category, we estimated the total capital costs would be approximately $8.7 million, annualized costs would be approximately $3 million per year, and HAP reductions would be approximately 185 tpy, which corresponds to a cost-effectiveness value of approximately $16,000/ton HAP.

Considering all of the health and environmental risk information and factors discussed above, including the substantial uncertainties regarding our estimates of UFIP emissions, and the costs and cost effectiveness of the work practices, the EPA proposed that risks from the Integrated Iron and Steel Manufacturing Facilities source category are acceptable and that revision of the standards is not required in order to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect.

2. How did the risk review change for the Integrated Iron and Steel Manufacturing Facilities source category?

No changes were made to the risk review in the final rule. As mentioned above, we received new arsenic performance test data and an industry conducted risk assessment for the example facility from industry shortly before proposal suggesting arsenic emissions and risks are about 60 percent lower than our estimates.[3] (See 84 FR 42720 (August 16, 2019) for more discussion). However, we did not rerun the risk model after proposal because of the court-ordered schedule to complete the final rule [4] and because it would not affect the outcome of the final rule. We proposed risks were acceptable and the NESHAP provided an ample margin of safety to protect public health. Based on

[3] Letter and attachment from P. Balserak, AISI, Washington, DC, to C. French, U.S. EPA, Research Triangle Park, NC. 34 pages. February 4, 2019. (Docket ID Item No. EPA–HQ–OAR–2002–0083–1014).

[4] The EPA is required by court order to complete the RTR for the Integrated Iron and Steel Manufacturing Facilities source category by May 5, 2020. *Calif. Communities Against Toxics* v. *Wheeler,* No. 1:15–cv–00512, Order (D.D.C. March 13, 2017, as modified February 20, 2020).

consideration of comments and information received through the comment period, we continue to conclude risks are acceptable and that the NESHAP provides an ample margin of safety to protect public health.

3. What key comments did we receive on the risk review, and what are our responses?

This section provides a summary of key comments and responses regarding the risk review. A summary of all other public comments on the proposal related to the risk review and the EPA's responses to those comments is available in the document, *Summary of Public Comments and Responses for the Risk and Technology Review for Integrated Iron and Steel Manufacturing Facilities* (Docket ID No. EPA–HQ–OAR–2002–0083). With regard to UFIP emissions and potential work practices, key comments and responses in regard to risk are discussed below. Other key comments and responses are discussed under the sections in this preamble on technology review (Section IV.B of this preamble) and UFIP (Section IV.F). The remainder of the UFIP comments and responses are discussed in the response to comment document cited above.

Comment: One commenter stated the EPA has failed to provide an ample margin of safety. The commenter stated at the ample margin stage, the EPA refuses to address the fact that the health risks are quite high. The EPA must consider how to assure an ample margin of safety to protect public health from the systemic harm implied by this risk value. Yet, the EPA does not discuss or find that it is providing any margin, much less an ample one, to protect people from the emissions causing the carcinogenic, chronic noncancer, and acute risks it also found.

In contrast, a different commenter stated the conservative residual risk estimates in the proposal are already well below the presumptively acceptable risk threshold, despite being artificially inflated due to inaccurate emissions inputs and modeling parameters. Thus, the Agency's proposed determination that no additional regulatory requirements are necessary to provide an ample margin of safety or to prevent adverse environmental effect in light of relevant factors including safety and costs is unquestionably reasonable and appropriate.

Response: We acknowledge the comments supporting the EPA's ample margin of safety analysis and the determination that risks are acceptable and no additional regulatory requirements are necessary to provide an ample margin of safety or to prevent adverse environmental effect. A summary of the EPA's ample margin of safety analysis is provided in section IV.A.1 of this preamble and in the proposal preamble (84 FR 42704). Further details are provided in the memorandum titled *Ample Margin of Safety Analysis for Point Sources in the Integrated Iron and Steel Industry* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0952). In this memorandum, we estimate the remaining risk after implementation of potential control technologies and work practices along with the costs of these controls and work practices.

The EPA disagrees with the comments that the EPA failed to satisfy the CAA requirement to provide an ample margin of safety and only addressed whether cost-effective measures were identified for reducing HAP emissions. The EPA uses ''a two-step standard-setting approach, with an analytical first step to determine an 'acceptable risk' that considers all health information, including risk estimation uncertainty, and includes a presumptive limit on MIR of approximately 1-in-10 thousand,'' as stated in the Benzene NESHAP (54 FR 38045), followed by a second step to set a standard that provides an ''ample margin of safety,'' in which the EPA considers whether the emissions standards provide an ample margin of safety to protect public health in consideration of all health information, including the number of persons at risk levels higher than, approximately, 1-in-1 million, as well as other relevant factors, including costs and economic impacts, technological feasibility, and other factors relevant to each particular decision.

As explained above, we determined, based on our risk analysis, the risks from the source category are acceptable and that no additional regulatory requirements are necessary to provide an ample margin of safety to protect public health.

Regarding potential controls for point sources (described in section IV.A.1 of this preamble), we determined these controls would reduce risks, but were not cost effective. The calculated cost-effectiveness values were $940,000/lb, $23,000/lb, and $94 million/lb for HAP removed from BF (chromium VI), BOPF (arsenic), and sinter plants (dioxins/furans), respectively.

With regard to the UFIP and potential work practices, consistent with our explanation in the proposed rule (see 84 FR 42704), based on consideration of all our analyses and related information, including the risk results, costs, and uncertainties, we have determined that no additional standards are required under CAA section 112(f) and that the current NESHAP provides an ample margin of safety to protect public health. This decision is based largely on the substantial uncertainties in the estimates of the baseline HAP emissions from UFIP emission sources, costs of the work practices, HAP risk reductions that would be achieved by the work practices, and uncertainties raised by industry in their comments regarding potential effects of the work practices on the facilities' operations, safety, and economics.

Comment: One commenter stated the multipathway risk did not include UFIP sources. Since the EPA only considered UFIP emissions from the one facility, the commenter inquired about the population that resides in the area impacted by all four mills along a short 20 mile stretch of northwest Indiana. The commenter questioned whether the cumulative risk from inhalation from total point, and UFIP sources for people who live within the impacted areas from all of these mills together was addressed because it does not appear to have been assessed in this proposal. The commenter asserted the EPA has significantly underestimated the exposure for people who live near more than one of the four mills in an approximately 20-mile area of northwest Indiana. The commenter stated the EPA's risk model results, when UFIP emissions are included for the example facility alone, increase by an order of magnitude. The commenter asserted that by itself this should have made it imperative that the EPA consider UFIP sources as important as point sources in quantifying emissions and risks and considering control measures in the final rule.

Another commenter stated documents in the rule docket show serious, harmful, and major releases of pollution, demonstrated in photographs and in high opacity or visible smoke, and in inspections and communications with enforcement officials. The commenter asserted that this information shows the need for stronger standards under each provision of the CAA. The commenter concluded that by not including UFIP emissions in its multipathway assessment, the EPA has underestimated health risks and the already high health threats communities are facing. The commenter stated the EPA has recognized that its residual risk assessment fails to account for several types of pollution that the EPA calls UFIP emissions. The commenter stated the EPA is also refusing to complete a risk assessment for all sources, including the UFIP emission points, and

this is unlawful. The commenter asserted the EPA needs to complete a new risk assessment study, where they include all of the risk factors, to protect the health of Americans that are living around these steel facilities.

Response: The commenter is correct that the UFIP emissions were considered later in the process of developing the RTR and, therefore, were not included in the quantitative multipathway analysis. The EPA would not have been able to meet the RTR court-ordered deadline if the multipathway analysis was repeated to include UFIP emissions or if the risk assessment was repeated to include UFIP emissions from all facilities. However, we qualitatively considered the potential impact of UFIP emissions on the multipathway analysis and concluded that including UFIP emissions would not have affected the results or conclusions of the analysis. Specifically, the HAP driving the risks in the multipathway analysis were dioxins/furans from sinter plants (with a cancer risk estimate for the highest exposed individual of 40-in-1 million from the fisher scenario). In contrast, the UFIP HAP emissions are particulate HAP metals (such as arsenic) from the BF and BOPF related sources, and do not include dioxins/furans. The combined metal HAP from all point sources at the three facilities in the multipathway analysis showed a significantly lower risk (with a cancer risk estimate of 2-in-1 million from arsenic emissions from the gardener scenario) as compared to the risk estimated from dioxins/furans noted above. Therefore, even if we took estimated arsenic emissions from UFIP sources into account in the multipathway analysis, the multipathway risks from the gardener scenario would almost certainly remain lower than the dioxins/furans risk from the fisher scenario. Thus, we have no reason to believe that including arsenic emissions from UFIP sources in the multipathway analysis would alter our conclusion from the multipathway analysis.

Obtaining measurements of UFIP emissions via source testing to combine with the point source emissions was not possible due to the court-ordered deadline and, more importantly, because measurement of UFIP sources would be very difficult, if not impossible, for some sources. To balance the difficulty of obtaining reasonably accurate information on HAP emissions from UFIP sources with the importance of gaining some understanding of the potential risk from UFIP, we modeled a very large facility with the highest expected UFIP (and HAP) emissions, which is also close to a large urban area to estimate the potential upper-end risks due to such emissions. Using the example facility analysis was also a time-saving measure in lieu of estimating UFIP emissions for the entire industry via emission factors.

Comment: One commenter stated the EPA found that a list of effective controls, work practices, and monitoring methods for UFIP sources could achieve HAP reductions from the seven UFIP sources. The commenter stated the EPA's findings are extensive, and are noted as being available, with emissions ''preventable,'' with many practices identified as ''having no or minimal cost'' (ample margin of safety memorandum at 7), and that some facilities are actually using currently. See, *e.g.,* Id. at 7–15. The commenter further stated the EPA found that the experience of its regional staff provided the reason for consideration of these controls. The commenter continued that the EPA recognized some iron and steel sources have had serious compliance problems in the past and highlighted some provisions, like stronger monitoring, that would reduce and prevent those problems. The commenter stated the EPA also provided photographs (at undisclosed locations) that show huge visual releases of HAP metals and other pollution into the air from bell leaks, beaching, and BF slips. The commenter noted that the care the EPA staff took to research, compile, and discuss the important pollution control methods is appreciated.

The commenter stated the Ferroalloys and Secondary Lead Smelting NESHAP each include a number of methods or variations on the methods described in the Integrated Iron and Steel Manufacturing Facilities RTR proposal to reduce metal HAP emissions from UFIP—such as requiring total or partial building enclosure with negative pressure. In addition, the commenter asserted the EPA has recognized the need to prohibit uncontrolled releases of HAP to the atmosphere from planned or unplanned openings at other kinds of facilities. For example, the commenter noted that the EPA, in a long list of CAA section 112 rulemakings in recent years, has repeatedly prohibited uncontrolled HAP releases that vented directly to the atmosphere rather than being routed to a control device.

The commenter stated the EPA ultimately proposes not to require any of the work practices, referring to ''uncertainties regarding the effect the work practice standards would have on facility operations, economics, and safety.'' The commenter stated the EPA's own analyses and direct observations all support better characterizing UFIP emissions and implementing the basic cost-effective control measures and work practices the EPA has already explored to some extent. To not do so, the commenter asserted, would be to ignore the EPA's own analyses of the impacts to human health and the environment of the UFIP emissions from the mills in these highly affected areas, and miss the opportunity to implement easy cost and industry-friendly actions that would go far to reduce impacts to the nearby communities, land, and waterways. The commenter asserted the EPA may not lawfully or rationally refuse to set emission standards that reflect the emission reduction methods available.

Response: We agree with the commenter that work practices to reduce UFIP emissions are available. However, due to the substantial uncertainties regarding the emissions estimates, the uncertainties regarding the costs and effectiveness of the work practices, and potential negative effects of the work practices on facility operations, economics, and safety that were asserted by industry representatives (see below in their detailed comments), the EPA is not promulgating any work practice requirements for UFIP sources in this final rule at this time. Because we conducted a risk assessment for the largest facility in the source category to examine a worst-case scenario for UFIP sources in the industry (as described in detail in section IV.A of this preamble) and determined that risks posed by emissions from the source category were acceptable, and due to the uncertainties and other factors described above, we conclude that the NESHAP provides an amply margin of safety and additional standards, such as work practices described above, are not necessary. In addition, because of the same uncertainties and potential impacts described above for the UFIP sources and work practices, we also are not promulgating any work practice standards under CAA section 112(d)(6) for the two regulated UFIP sources in this action.

Comment: One commenter stated the EPA is right to conclude that additional control technologies, including wet ESPs for BF casthouses and BOPF shops and ACI systems for sinter plant windboxes would not provide cost-effective emissions reductions, given the extremely high costs associated with small incremental additional reductions of HAP.

The commenter asserted that the EPA's ''very high'' cost estimates are

actually low, *i.e.,* underestimated, and that the removal rate estimates are high, *i.e.,* overestimated. The values that the EPA calculated are so clearly not cost effective, however, that further analysis of these costs and reduction levels is unnecessary to reject them under an ample margin of safety analysis. The EPA's proposed determination is, thus, well within the substantial discretion afforded to it under the Court's *Vinyl Chloride* decision and should be finalized.

Response: We acknowledge the comments supporting the EPA's proposed determination that no new standards are required to provide an ample margin of safety to protect public health and that the costs of the control technologies evaluated and emission reductions estimated in the ample margin of safety analysis were not in the range generally determined to be cost effective by the EPA. The costs of additional controls are disproportionately high considering the reductions in risk that are achievable.

Comment: One commenter stated it is arbitrary for the EPA to find risk acceptable in view of additional evidence of uncertainty in the record. The EPA should find the current health risks to be unacceptable because of the omissions, underestimates, and uncertainties its own risk assessment contains. The EPA has failed to show, based on evidence in the record, that the risks are not significantly higher than the values it has presented. The EPA has failed to justify its acceptability determination when such major gaps are present.

Response: As stated in the proposal rulemaking, the estimated combined worst-case, upper-end risks (point and UFIP) are below the presumptive limit of acceptability of 100-in-1-million and the noncancer results indicate there is minimal likelihood of adverse noncancer health effects due to HAP emissions from this source category. As we explained in the proposal preamble, the EPA's risk results indicate that the inhalation cancer risks to the individual most exposed are less than 90-in-1 million, as a worst case, considering the highest allowable risk due to point sources among the industry facilities plus the conservative estimate of risk from UFIP emissions due, in part, to the use of the largest facility as the example facility. Furthermore, we conclude that by using the UFIP emissions estimate from the example facility plus the highest allowable point source risk to represent the worst case risk scenario for the industry mitigates any potential concerns regarding the lack of UFIP emissions estimates and associated UFIP associated risks for each individual facility. Furthermore, we did not receive any data or information through the public comment process that would change our proposed determination that risks are acceptable.

Comment: One commenter stated the EPA's ICR did not collect emissions data information on UFIP sources or all HAP emitted, controlled and uncontrolled. The EPA assessed additional particulate and metal HAP emissions from UFIP sources not addressed in the ICR through estimates based on ''literature values for PM from these or other similar emission points and ratios of HAP to PM developed from the ICR data.'' The commenter also stated the EPA's ''actual'' analysis of risk is based on an emission inventory that is largely calculated from emission factors and engineering judgment. The commenter asserted that it is well-documented that emission factors underestimate emissions for a variety of reasons including inherent bias in the factors themselves and the inability to account for equipment malfunctions and environmental conditions. The commenter stated the EPA cannot rationally base emission estimates or risk assessments on data it has strong reason to doubt. The commenter stated the EPA must collect actual emissions data to support its emissions estimates. The commenter argues that, to the extent actual data is not collected, the Agency must adjust the emissions inventory using these same conclusions from the technology review and the large body of scientific evidence that show emissions factors underestimate emissions, in order to ensure that the inventory better represents reality and reflects actual emissions.

One commenter stated that the proposal's UFIP source analysis (*i.e.,* effort to quantify UFIP emissions) is based on no sampling or engineering analysis, but on very dated studies and emission factors that are poorly rated. While it is more difficult to characterize the emissions from UFIP sources, the commenter asserted that methods do exist that can help in properly characterizing UFIP emissions. The commenter stated these include grab sampling followed by HAP characterization, use of process knowledge, and engineering assessment/modeling. The commenter asserted that each of these methods could have been used by the EPA to better characterize potential HAP emissions from UFIP.

Response: The commenter is correct that EPA did not require HAP testing from these UFIP sources in the ICR in 2011. The EPA did not have a good understanding of the UFIP sources at the time of the ICR in 2011. Furthermore, it would have been quite difficult to reliably measure the UFIP emissions at that time due to the nature of such emissions and lack of test methods to reliably quantify emissions from these sources for use in the RTR. However, note that we did not use an inventory for any analyses in this RTR, for UFIP or otherwise.

The HAP to PM ratios that were used along with the estimates of PM emissions from UFIP to calculate HAP emissions estimates for UFIP sources for the risk assessment for this action were obtained from ICR source tests and are as good, in terms of quality and, therefore, accuracy, if not better than the grab samples that the commenter suggests because the ICR stack tests were performed continuously over a period of hours providing a composite profile of HAP emissions, whereas grab samples would have been instantaneous and only reflect a discrete moment in time. The EPA used all of the other methods recommended by the commenter to estimate emissions from UFIP sources, specifically: HAP characterization, use of process knowledge, and engineering assessment/modeling, as described in the technical memorandum titled Development of Emissions Estimates for Fugitive or Intermittent HAP Emission Sources for an Example Integrated Iron and Steel Facility for Input to the RTR Risk Assessment (Docket ID Item No. EPA–HQ–OAR–2002–0083–0956), hereafter called the ''Example Facility'' memorandum.

The emission factors used in the example facility analysis were, in most cases, from a number of test reports from various and different facilities that were evaluated and combined into one overall emission factor for each of the seven UFIP sources. Environmental conditions and malfunctions are not included in data used to develop EPA emission factors and the latter are never included in any part of an emission factor analysis. In addition, we have no evidence that based on current industry operation the EPA's emission factors are biased low, in general, *i.e.,* for typical or average conditions. Engineering judgment was used when portions of the emission estimates were missing and was conservative in nature. An analysis using limited ambient emission data previously obtained by the EPA in the vicinity of the example facility, included in the ''Example Facility'' memorandum (Section 7 and Appendix G), indicates the EPA's emissions estimates for UFIP at the example facility are plausible.

4. What is the rationale for our final approach and final decisions for the risk review?

Based on consideration of comments, and all of the health risk information, factors, results, and uncertainties discussed above and in the proposal (84 FR 42704), we conclude the risks due to HAP emissions from this source category acceptable. Furthermore, based on the analyses described in the proposal and elsewhere in this preamble, including the evaluation of potential controls and work practices to reduce emissions and risks, and the costs, effectiveness, and uncertainties of those controls and work practices, and after evaluating comments, we conclude the NESHAP provides an ample margin of safety to protect public health. Finally, based on our evaluation of environmental risks, we conclude that more stringent standards are not necessary to prevent an adverse environmental effect. Therefore, we are not promulgating any additional control requirements pursuant to CAA section 112(f)(2), but instead are readopting the existing standards.[5]

B. Technology Review for the Integrated Iron and Steel Manufacturing Facilities Source Category

1. What did we propose pursuant to CAA section 112(d)(6) for the Integrated Iron and Steel Manufacturing Facilities source category?

In the proposed technology review, we evaluated the cost effectiveness of upgrading fume/flame suppressants used for control of fugitive PM and HAP metal emissions from BF to use of baghouses as control devices. We also evaluated process modifications found in European literature to further reduce dioxins/furans emissions from sinter plants; these potential process controls for dioxins/furans emissions were in addition to the add-on control devices considered for sinter plants under the ample margin of safety analysis for point sources described above. The technology reviews for these two emissions sources were discussed in detail in the proposal (84 FR 42704) and the technical memorandum titled *Technology Review for the Integrated Iron and Steel NESHAP* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0964).

In the proposed technology review, the EPA also evaluated potential work practices to reduce nonpoint source emissions from the BF casthouse and BOPF shop (84 FR 42704). However, the EPA did not propose any of these work practices primarily because there are significant uncertainties in the technical assessment of UFIP emissions that includes estimates of the baseline UFIP emissions, the estimated HAP reductions that would be achieved by the work practices, and the costs of the work practices. In addition, there also are uncertainties in the effect the work practices would have on facility operations, economics, and safety. Based on all our analyses and uncertainties described above, the EPA proposed to find that there are no developments in practices, processes, or control technologies that necessitate revising the standards for these two UFIP sources under CAA section 112(d)(6).

Considering all the information evaluated in our technology reviews for upgrading fume/flame suppressants control on BFs, sinter plant process modifications, and the potential work practices to reduce UFIP emissions from BF casthouse and BOP shop, we did not identify any developments in practices, processes, or technologies that warrant revision of the NESHAP for the currently regulated point or nonpoint sources under section 112(d)(6) of the CAA and, therefore, did not propose any changes to the NESHAP pursuant to section 112(d)(6) of the CAA.

a. Upgrading Fume/Flame Suppressants at BFs to Baghouses

Emissions from BFs are controlled in the integrated iron and steel industry in one of two fundamentally different ways: (1) Fume and flame suppression techniques or (2) conventional ventilation practices that route exhaust air to control devices such as baghouses. Fume suppression consists of blowing natural gas over the open equipment which retards vaporization and prevents emissions. With flame suppression, the natural gas is ignited with accompanying oxygen consumption that suppresses the formation of metal oxide emissions. The use of fume/flame suppressants for control of fugitive BF casthouse emissions is estimated to have 75-percent control, whereas control with baghouses is estimated to have 95-percent control.

There are a total of eight BFs with fume/flame suppressants distributed at four facilities among the 21 BFs total at 11 integrated iron and steel facilities. Per-unit capital costs for converting from fume/flame suppressant control to baghouses was estimated to be $18 million with $2.7 million in annual unit costs, where some facilities have two or three units. Total industry costs are estimated to be $140 million in capital costs and $22 million in annual costs. The estimated cost effectiveness of upgrading the fume/flame suppressant control to ventilation and baghouses at all eight BFs is $7 million/ton of metal HAP with 3 tpy of HAP removed, and $160,000/ton PM with 120 tpy of PM removed. We concluded these controls were not cost effective and, therefore, we did not propose to require baghouses to be installed on BFs as a result of the technology review.

b. Process Modifications To Control Dioxins/Furans at Sinter Plants

There are three facilities in the Integrated Iron and Steel Manufacturing Facilities source category that have sinter plants. The sinter plants are currently regulated by PM and opacity limits on the windbox exhaust stream, sinter cooler, and discharge end of sinter plants. In addition, the sinter plant windbox is regulated for organic HAP with compliance demonstrated by either meeting a VOC limit or a limit on oil content of the sinter feed. Dioxins/furans are components of the organic HAP but because of their higher toxicity, they often are evaluated separately under control scenarios. Therefore, our technology review included exploration of potential control measures that could further reduce dioxins/furans from sinter plants.

For the proposal, we conducted a literature search and reviewed various technical publications (largely from Europe and other countries in the Stockholm Convention[6]) regarding potential control technologies and practices to reduce dioxins/furans from sinter plants and found a number of potential options that could potentially be applied at sinter plants in the U.S.[7][8][9] These options include urea injection to inhibit dioxins/furans formation; partial

[5] The Court upheld this approach to CAA section 112(f)(2) in *NRDC* v. *EPA,* 529 F.3d 1077, 1083 (D.C. Cir. 2008): ''If EPA determines that the existing technology-based standards provide an 'ample margin of safety,' then the Agency is free to readopt those standards during the residual risk rulemaking.''

[6] *Stockholm Convention on Persistent Organic Pollutants (Pops), Texts and Annexes.* Revised in 2017. Published by the Secretariat of the Stockholm Convention, Geneva, Switzerland. May 2018. Available at: *http://www.pops.int.*

[7] Ooi, T. C. and L. Lu. *Formation and mitigation of PCDD/Fs in iron ore sintering.* Chemosphere 85 291–299. 2011.

[8] Boscolo, M.E., Padoano, and S. Tommasi. *Identification of possible dioxin emission reduction strategies in preexisting iron ore sinter plants.* Institute of Materials, Minerals and Mining. Published by Maney on behalf of the Institute. Ironmaking and Steelmaking. 15:35:11.The Charlesworth Group, Wakefield, UK. October 19, 2007.

[9] Lanzerstorfer, C. *State of the Art in Air Pollution Control for Sinter Plants.* Chapter 18, in *Ironmaking and Steelmaking Processes.* P. Cavaliere, Ed. Springer International Publishing, Springer Nature, Switzerland AG. 2016.

windbox exhaust gas recirculation; post-exhaust windbox chemical spray (monoethanolamine and triethanolamine dissolved in water and sprayed onto exhaust); and elimination of certain inputs (*e.g.,* no ESP dust). The European Union also included these measures in their 2013 Best Available Technology evaluation.[10]

As far as we knew at proposal, none of these technologies or practices were currently used at sinter plants in the U.S. However, based on the literature cited above, we believe some of these technologies or measures may be used to control dioxins/furans in other countries (such as in Europe and other countries complying with the Stockholm Convention).

We were not able to estimate the costs of these control methods due to lack of cost information in the literature, nor were we able to estimate the feasibility for U.S. facilities. Based on the analysis set forth in the proposal, we did not propose to require process modifications to control dioxins/furans at sinter plants as a result of the technology review.

c. Work Practices as a Potential Measure To Reduce UFIP Emissions From BF Casthouses and BOPF Shops

As described in the proposal, we evaluated potential work practices to reduce uncaptured fugitive emissions from BF casthouses and BOPF shops under our technology review. The estimated capital costs for work practices for these two nonpoint sources were $1.4 million and annualized costs were $1.7 million. We estimated these work practices would achieve about 173 tpy reduction in metal HAP, at an average combined cost effectiveness of $10,000 per ton.

After considering all the information and analyses, we proposed to find that there were no developments in practices, processes, or control technologies that necessitate revising the standards for these two UFIP sources under CAA section 112(d)(6). This decision was based largely on the considerable uncertainties in the technical assessment of UFIP emissions that includes estimates of the baseline UFIP emissions, the HAP emission reductions that would be achieved by the work practices, and the costs of the work practices. In addition, as indicated by the industry in their comments, there are also uncertainties with regard to the effect the work practices would have on facility operations, economics, and safety.

2. How did the technology review change for the Integrated Iron and Steel Manufacturing Facilities source category?

No changes were made to the technology review in the final rule from that proposed for the Integrated Iron and Steel Manufacturing Facilities source category (84 FR 42704).

3. What key comments did we receive on the technology review, and what are our responses?

This section provides a summary of key comments and responses regarding the technology review. Related comments and responses in regard to UFIP emissions are discussed in sections IV.A.3 and IV.F.3 of this preamble. A summary of all other public comments on the proposal and the EPA's responses to those comments is available in the *Summary of Public Comments and Responses for the Risk and Technology Review for Integrated Iron and Steel Manufacturing Facilities* (Docket ID No. EPA–HQ–OAR–2002–0083).

Comment: One commenter stated the record contradicts the EPA's conclusion of no developments for point sources. The evidence shows, ''that there are many techniques to control dioxins/furans emissions from sinter plants,'' through process modifications controls such as windbox gas recirculation or chemical treatment of windbox exhaust, and these are in use at European facilities. Tech. Review Memo at 21. The commenter said that the EPA found chemical treatment could achieve 40- to 90-percent control and that the EPA concluded that the cost effectiveness and success of application of these techniques in the U.S. is not known. *Id.* at 19–20. The commenter stated that the EPA gave no justification for why the application should be different in the U.S., however, nor any evidence showing that these could not be applied or should not be applied in the U.S. The commenter also claimed that the European Union actually requires BAT for control of dioxins/furans emissions and stated that the EPA has no lawful or rational basis to refuse to revise the emission standards to ''tak[e] into account'' these techniques when they are plainly ''developments'' within the meaning of CAA section 112(d)(6). *Id.* at 20.

The commenter stated the EPA's claims about the cost effectiveness of ACI in the proposal were made in the context of its separate CAA section 112(f) analysis (84 FR at 42725) and that the EPA did not evaluate ACI in the context of its CAA section 112(d)(6) analysis. *Id.* at 42729. The commenter also claimed that the EPA's findings under CAA section 112(f)(2) cannot possibly satisfy the Agency's obligations under the separate and different requirements of CAA section 112(d)(6). Stating what the EPA believes ACI costs does not show that ACI is not cost effective and is irrelevant under CAA section 112(d)(6). Equally irrelevant is whether or not ACI would reduce health risks. The focus under CAA section 112(d)(6), is how much reduction is achievable and not the EPA's views about risk or the value of reducing it.

The commenter stated moreover, the Agency grossly underestimates this technology's cost effectiveness by considering it only for one HAP at a time, as if iron and steel sources would have to purchase and install ACI once to control dioxins/furans, and again to control other pollutants. 84 FR 42726 (August 16, 2019). The commenter stated the EPA's irrational failure to recognize the actual benefits of ACI on multiple HAP is arbitrary and unlawful.

In addition, the commenter asserted that the Agency pretends that cost effectiveness must be measured in dollars per ton even for pollutants like mercury and dioxins/furans for which such a measure is ''ridiculous.'' The commenter explained that dioxins/furans are measured in millionths of a gram, and they are toxic in the millionths of a gram. Further, the commenter elaborated that all the industries in the nation do not emit a single ton of dioxins/furans in a year. The commenter posited that giving the cost effectiveness for ACI in dollars per ton of dioxins/furans is meaningless and that by doing so the EPA is simply obscuring the facts by using absurdly irrelevant units to make ACI look as though it is not cost effective to support its rejection of an extremely effective and cost-effective technology.

The commenter stated failing to present all of the underlying information the EPA relied on for its CAA section 112(d)(6) determination—including, *e.g.,* the title V permits to which it refers—makes it impossible for the public and for a reviewing court to evaluate the EPA's conclusory determination that there are ''no developments'' requiring revision.

In contrast, a different commenter stated as part of the technology review, the EPA considered a number of process

[10] *Best Available Techniques (BAT) Reference Document for Iron and Steel Production.* Industrial Emissions Directive 2010/75/EU (Integrated Pollution Prevention and Control). R. Remus, M. A. Aguado-Monsonet, S. Roudier, and L. D. Sancho. European Commission, Joint Research Centre, Institute for Prospective Technological Studies. European IPPC Bureau, Seville, Spain. Luxembourg Publications Office of the European Union. doi:10.2791/97469. 2013.

modifications to provide additional reductions of dioxins/furans emissions from sinter plants but appropriately chose not to propose to require them based on inadequate information. The commenter stated that the EPA reasonably determined not to focus on additional control technologies for sinter plants during the technology review, which are already subject to limits on organic HAP emissions (through either a VOC limit or an oil content limit for the sinter feed). Based on the incredibly high estimated cost-effectiveness numbers, the commenter stated that the EPA proposes that these additional control technologies would not be cost effective and proposes not to require them. Although the commenter stated that the EPA's cost estimates appear unrealistically low and the estimated emissions reductions too high, even with those flawed assumptions the commenter stated that the EPA calculated such staggeringly high cost-effectiveness values that further analysis is unnecessary to establish that these controls are not appropriate to impose pursuant to the technology review. The commenter stated the process modifications the EPA evaluated are not used at any facility in the Integrated Iron and Steel Manufacturing Facilities source category but, rather, were identified during the EPA's literature review from primarily European sources. Sinter plant emissions are already regulated by PM and opacity limits, as well as a VOC limit or limit on sinter feed oil content to regulate organic HAP emissions, including dioxins/furans. The commenter stated that the EPA nonetheless looked to identify the potential process changes in its literature review to yield further dioxins/furans emission reductions. The commenter stated that none of the process changes that the EPA identified warrant revision of the 40 CFR part 63, subpart FFFFF standards for sinter plants. The industry reviewed the materials from the EPA's literature review described in the proposal; however, the commenter stated that the EPA did not provide adequate information to properly evaluate the potential effectiveness, costs, or other issues associated with the process changes discussed therein. Because there has not been a meaningful opportunity to review and comment on any potential requirement the EPA could impose on the basis of that insufficiently clear literature, the commenter stated that none should be adopted in the final rule.

Response: At proposal, we evaluated ACI as a means of reducing dioxins/furans emissions from sinter plants and used the information and data we collected to inform both our ample margin of safety analysis under CAA section 112(f) and our technology review under CAA section 112(d)(6). In addition, we investigated potential process modifications to reduce emissions for the sinter plants under CAA section 112(d)(6). None of the process technologies or practices identified to control dioxins/furans in European sinter plants are currently used at sinter plants in the U.S. Therefore, we were not able to estimate the costs of these control methods due to lack of cost information in the literature, nor were we able to determine the feasibility for U.S. facilities or whether the European facilities that are applying these process modifications are similar enough to U.S. facilities to enable adoption of the same control techniques. Considering all the information in our technology reviews, we did not identify any developments in practices, processes, or technologies that warrant revision of the NESHAP for sinter plants.

We agree with the first commenter that dioxins/furans are commonly expressed in grams. However, in the RTR proposal (84 FR 42704), we provided the emissions for dioxins/furans in measurement units typically used for most other HAP (*i.e.,* tons and lbs) for consistency purposes. Changing measurement units does not change the relative impact of this analysis compared to previous EPA analyses for dioxins/furans.

We agree with the first commenter that we did not specifically discuss ACI for dioxins/furans in the technology review sections of our RTR proposal preamble. However, in the memorandum titled *Technology Review for the Integrated Iron and Steel NESHAP* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0964), we explained (on page 17 of 22) that although add-on controls are available, the focus for the technology review was on process modifications because add-on controls (*i.e.,* ACI) for dioxins/furans emissions were shown not to be cost effective at sinter plants at integrated iron and steel facilities in the ample margin of safety analysis. For details of this analysis, see the memorandum titled *Ample Margin of Safety Analysis for Point Sources in the Integrated Iron and Steel Industry* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0952).

In terms of multiple pollutant control, for the purpose of this comment, because dioxins/furans are quite different than other HAP, we typically would not add together the mass of other individual HAP together with dioxins/furans to generate a cost effectiveness value for the sum of HAP, such as in units of dollars per ton of total HAP or lbs per ton of total HAP. Nevertheless, in response to the comment, we estimated the cost effectiveness to control VOC, such as benzene, toluene, ethyl benzene, and xylene (BTEX), and carbonyl sulfide (COS) with ACI. Using the same annual costs for ACI described for control of dioxins/furans (see 84 FR 42725 (August 16, 2019) and also Docket ID Item No. EPA–HQ–OAR–2002–0083–0952), at $1,849,781 per year, and assuming 85-percent control of BTEX and COS with ACI (average of vendor estimate of 80 to 90 percent),[11] the estimated cost effectiveness for BTEX and COS co-control is approximately $14,000/ton, which is above the range that the EPA has typically considered cost effective for volatile HAP. Consequently, we continue to conclude that ACI is not cost effective for sinter plants, whether we consider ACI for only dioxins/furans controls or if we consider costs and cost effectiveness of the other HAP as well, and we are not promulgating any new or revised standards for sinter plants under the technology review pursuant to CAA section 112(d)(6).

We disagree with the comment that claims the EPA did not provide the underlying information the EPA relied on for its CAA section 112(d)(6) determination. The EPA provided all the relevant supporting information in the proposal preamble or technical memoranda, including the *Technology Review for the Integrated Iron and Steel NESHAP* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0964) and *Ample Margin of Safety Analysis for Point Sources in the Integrated Iron and Steel Industry* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0952). Regarding the title V permits, we made no reference to title V permits in this rule package or any of the supporting materials and technical memoranda; therefore, we cannot address the commenter's points on this issue.

Comment: One commenter stated the EPA cannot justify leaving other non-mercury emissions completely uncontrolled. Refusing to set limits on all uncontrolled pollutants that iron and steel sources emit is both unlawful and arbitrary. The commenter stated that the EPA's emission standards for iron and

[11] Telecommunication. Raymond, G., RTI International, Research Triangle Park, North Carolina, with C. Allen, Carbon Activated Corporation, Blasdell, New York. January 27, 2020.

steel plants lack any limits at all for certain HAP, such as hydrochloric acid (HCl), hydrogen cyanide (HCN), and COS, either direct or through a surrogate. Specifically, the iron and steel plants emit 12 tpy HCl, 4 tpy HCN, and 72 tpy COS. Although the EPA has set certain requirements that purport to be limits on VOC, it has not set any limit for iron and steel plants' emissions of COS. Indeed, when the EPA promulgated the Integrated Iron and Steel Manufacturing Facilities standards, it did not even recognize that they emit COS. Instead, the EPA claimed that iron and steel plants emit only ''trace amounts of other organic HAP (such as polycyclic organic matter, benzene, and carbon disulfide).'' Moreover, the EPA claimed that these ''trace'' emissions come entirely from oil used in the sintering process, and its only limit on them is to ''establish limits on the amount of organic HAP precursor material (specifically oil and grease) that may be in the sinter feed . . .'' The commenter stated because the EPA does not claim that COS emissions either come from organic HAP precursor material in sinter feed or can be reduced by limits on such material, its current standards do not limit emissions of COS. In addition, the extremely dangerous neurotoxicant HCN appears not to be currently restricted at all.

The commenter stated it is well-established that, under CAA section 112(d) of the CAA, the EPA's emission standards for a source category must include limits for each HAP that a source category emits. As the Court held in *National Lime Ass'n,* 233 F.3d 625, 634 (D.C. Cir. 2000), the Agency has a ''clear statutory obligation to set emission standards for each listed HAP.'' In subsequent decisions, the Court has repeatedly confirmed that the EPA has this obligation, that it is unambiguous, and that the EPA's failure or refusal to set limits for each listed HAP that a category emits is flatly unlawful. See, *e.g., Sierra Club* v. *EPA,* 479 F.3d 875, 883 (D.C. Cir. 2007). Despite the plain language of the CAA and the Court precedent, the existing standards do not currently contain any limit at all on certain HAP.

The commenter stated that CAA section 112(d)(6) requires the EPA to review and revise ''as necessary'' the emission standards for integrated iron and steel facilities. This includes ensuring standards apply to all emitted HAPs and satisfying all currently applicable requirements. As part of its review rulemaking under CAA section 112(d)(6) of existing standards to determine whether it is ''necessary'' to revise the standards, EPA must ensure that standards for Iron & Steel facilities meet the requirements of CAA section 112(d), consistent with its responsibility under the CAA and applicable case law.

The commenter stated while the EPA has been ignoring its statutory obligations to control these sources' toxic pollution, people in communities near these sources suffer as a result of their exposure to uncontrolled HAP emissions. The commenter stated as communities currently have no protection at all from these emitted HAP, it is both unlawful and arbitrary for the EPA not to set a limit in this rulemaking. If it fails to do so, it will fail to complete the review and revision rulemaking as CAA section 122(d)(6) requires, will violate the Court's Order in *California Communities Against Toxics* v. *Pruitt,* 241 F. Supp. 3d 199 (D.D.C. 2017), and will also issue a final rule that is unlawful and inadequate.

Response: Section 112(d)(6) of the CAA requires the EPA to review and revise, as necessary (taking into account developments in practices, processes, and control technologies), emission standards promulgated under this section. We do not agree with the commenter's assertion that the EPA must establish new standards for unregulated emission points or pollutants as part of a technology review of the existing standards.[12] The EPA reads CAA section 112(d)(6) as a limited provision requiring the Agency to, at least every 8 years, review the emission standards already promulgated in the NESHAP and to revise those standards as necessary taking into account developments in practices, processes, and control technologies. Nothing in CAA section 112(d)(6) directs the Agency, as part of or in conjunction with the mandatory 8-year technology review, to develop new emission standards to address HAP or emission points for which standards were not previously promulgated. As shown by the statutory text and the structure of CAA section 112, CAA section 112(d)(6) does not impose upon the Agency any obligation to promulgate emission standards for previously unregulated emissions. Establishing emissions standards for unregulated emission points or pollutants involves a different analytical approach from reviewing emissions standards under CAA section 112(d)(6).

Though the EPA has discretion to develop standards under CAA section 112(d)(2) through (4) and CAA section 112(h) for previously unregulated pollutants at the same time as the Agency completes the CAA section 112(d)(6) review, any such action is not part of the CAA section 112(d)(6) review, and there is no obligation to undertake such actions at the same time as the CAA section 112(d)(6) review.[12] In the case of mercury, as described in sections III.C and IV.C of this preamble, the EPA has decided to promulgate new standards pursuant to CAA section 112(d)(2) and (3) to address an outstanding petition for reconsideration. However, the EPA is not establishing new standards for the other HAP described above (*i.e.,* HCl, HCN, and COS) as part of this rulemaking, partly due to the fact that the EPA has insufficient time to gather the information to complete the necessary analyses and review in order to develop such additional standards before the court-ordered deadline of May 5, 2020. Nevertheless, the Agency may address these additional HAP in a future action.

4. What is the rationale for our final approach for the technology review?

Our technology review focused on the identification and evaluation of developments in practices, processes, and control technologies that have occurred since the MACT standards were promulgated. Where we identified such developments, we analyzed their technical feasibility, estimated costs, energy implications, and non-air environmental impacts. We also considered the emission reductions associated with applying each development. This analysis informed our decision of whether it is ''necessary'' to revise the emissions standards.

For the reasons explained in the proposed rule (84 FR 42704) and in this final rule preamble (section IV.B), we determined that there are no developments in practices, processes, or control technologies that warrant revisions to the standards. We evaluated all of the comments on the EPA's technology review and we determined no changes to the review are needed. Consequently, the EPA is not promulgating any new or revised standards in this action for the Integrated Iron and Steel NESHAP under CAA section 112 (d)(6) of the CAA.[12] More information concerning our technology review is in the memorandum titled *Technology Review for the Integrated Iron and Steel*

[12] On April 21, 2020, shortly before this rule was signed, the U.S. Court of Appeals for the D.C. Circuit issued an opinion in *LEAN* v. *EPA* (No. 17–1257) in which the court held that the EPA has an obligation to set standards for unregulated pollutants as part of technology reviews under CAA section 112(d)(6). At the time of signature, the mandate in that case had not been issued and the EPA is continuing to evaluate the decision.

NESHAP (Docket ID Item No. EPA–HQ–OAR–2002–0083–0964).

C. Mercury Emission Limits

1. What did we propose for mercury emissions for the Integrated Iron and Steel Manufacturing Facilities source category?

On August 16, 2019, the EPA proposed emissions standards for mercury for the Integrated Iron and Steel Manufacturing Facilities source category pursuant to CAA section 112(d)(3) in part to address a petition for reconsideration received by the EPA in 2004 from the Sierra Club. The proposed MACT floor limit was 0.00026 lbs of mercury per ton of scrap processed as an input-based limit for all existing BOPFs and related units at existing integrated iron and steel facilities. We proposed two options to demonstrate compliance with the input-based limit of 0.00026 lbs of mercury per ton of scrap processed for existing facilities. These options were: (1) Conduct an annual performance test at all BOPF-related units and convert the sum of the results to input-based units (*i.e.,* lbs of mercury per ton of scrap input) and document the results in a test report that can be submitted electronically to the delegated authority with the results (see section IV.E below); or (2) certify that the facility obtains all of their scrap from NVMSRP participants (or similar program as approved by the delegated authority), or establish that their scrap is not likely to contain mercury switches. We proposed that existing sources would be required to comply with these requirements within 1 year of promulgation of the final rule. We also proposed that for facilities demonstrating compliance with the mercury limits through performance testing, subsequent performance testing would be required annually. In addition, we proposed that facilities demonstrating compliance through the scrap selection options, would be required to report their status with the appropriate required information in their semiannual compliance reports beginning 1 year after promulgation of final rule.

For new sources, we proposed a MACT limit of 0.00008 lbs of mercury per ton of scrap processed as an input-based limit for any new BOPF and related units, and new integrated iron and steel facility, pursuant to the CAA section 112(d)(3) requirements for new sources that the standard for new sources shall not be less stringent than the emission control that is achieved in practice by the best controlled similar source. With regard to compliance, the EPA proposed that new sources would have the same options to demonstrate compliance as the existing sources. A new BOPF and new integrated iron and steel facility was defined, with respect to the mercury standard, to be any BOPF or facility constructed or reconstructed on or after August 16, 2019.

2. How did the mercury emissions standards change for the Integrated Iron and Steel Manufacturing Facilities source category?

For the final rule, in response to comments, we changed the mercury testing frequency after the initial performance test to twice per permit cycle, *i.e.,* every 2.5 years in a 5-year title V permit cycle or every 2.5 years for facilities without a permit (where the initial performance test is performed within 1 year from the effective date of the rule); changed definitions for motor vehicle scrap; changed 40 CFR 63.7825 Equation 1 to reflect the correct calculation for mass emissions; and changed minor aspects of provisions that allow sources to demonstrate compliance through participation in the NVMSRP and other provisions related to compliance with the mercury limits. These changes are described in sections III.C, IV.C.4, and IV.C.5 of this preamble.

3. What key comments did we receive on the mercury emissions standards, and what are our responses?

This section provides a summary of key comments and responses regarding the mercury standard. A summary of all other public comments on the proposal and the EPA's responses to those comments is available in the *Summary of Public Comments and Responses for the Risk and Technology Review for Integrated Iron and Steel Manufacturing Facilities* (Docket ID No. EPA–HQ–OAR–2002–0083).

Comment: One commenter stated the EPA has appropriately proposed a measure to reduce mercury emissions, which the emission standards currently do not control, by (proposing to) set standards for the first time pursuant to CAA sections 112(d)(2) and (3). (84 FR 42730). The commenter urged the EPA to finalize this measure, but also asserted that it does not satisfy CAA section 112(d)(6). The commenter added, as the EPA acknowledges, the EPA also has a pending petition for reconsideration asking the EPA to set mercury limits. (*Id.* at 42,731). The EPA granted the petition on the issue of the mercury limits. The commenter opined that the EPA should not have waited 15 years to propose measures to reduce iron and steel plants' mercury emissions, and its current proposal falls short of the CAA's requirements. (*Id.*).

The commenter stated the EPA's proposed practices for the removal of mercury switches from the scrap metal used by iron and steel plants are not numeric emission limits. At best, the commenter stated, they constitute a work practice requirement the EPA has not even claimed, let alone shown, as it must under CAA section 112(h), that the statutory preconditions for setting work practice requirements instead of numeric emission limits have been satisfied. For this reason alone, the commenter asserted that the EPA's proposed mercury requirements are unlawful and arbitrary.

The commenter asserted that the limits fail to satisfy the stringency requirements under CAA sections 112(d)(2) and (3). Specifically, the commenter argues that the EPA has not demonstrated with substantial evidence, as it must, that these requirements reflect the mercury emissions levels actually achieved by the plants that are best-performing with respect to mercury and contravene CAA section 112(d)(3). Further, the commenter stated that the EPA has neither claimed nor demonstrated that its mercury requirements require the ''maximum'' degree of reduction in mercury emissions that is ''achievable'' through the full range of reduction measures enumerated in CAA section 112(d)(2) and, therefore, this violates CAA section 112(d)(2).

The commenter affirmed that the mercury switch requirements the EPA has proposed should be included in the Agency's final mercury emission limits. The commenter acknowledged that the EPA has the authority to set limits for mercury that reflect, among other things, the application of operational measures, such as the proposed mercury switch requirements. However, they questioned whether such measures are sufficient and asserted that, if not, the EPA must set numeric limits for mercury that satisfy the stringency requirements in CAA sections 112(d)(2) and (3).

The commenter stated that the proposed limits for mercury are unlawfully and arbitrarily weak, because they simply codify what the majority of sources are already doing—instead of ensuring the ''maximum achievable degree of emission reduction.'' (42 U.S.C. 7412(d)(2) and (3); see 84 FR 42730–32, August 16, 2019). The commenter stated that the EPA does not claim that this satisfies CAA sections 112(d)(2) and (3), or determine that numerical emission limits are not feasible.

Response: We acknowledge the support for our proposal to set mercury standards. This is the first time the EPA is promulgating a mercury emissions standard for this source category. Therefore, CAA section 112(d)(6) does not apply. Section 112(d)(6) of the CAA only applies to existing standards and requires that the EPA review existing standards within 8 years, and revise them as necessary, taking into account developments in practices, processes, or technologies.[12]

Pursuant to CAA sections 112(d)(2) and (3), and based on data from all facilities, we proposed MACT floor limits for new and existing sources in terms of lbs of mercury per ton of scrap processed as an input-based limit for all BOPFs and related units (HMTDS and ladles) at integrated iron and steel facilities. These limits, which are in units of mass of mercury emissions from all BOPFs and related units at each facility (hereafter called the ''BOPF Group'' [13]) per mass of scrap processed by each facility in their BOPFs, were derived using performance test data and data on amount of metal scrap processed obtained through an ICR sent to the industry in 2011, and are based in part on the assumption that the mass of mercury emitted from all BOPFs and related units is equivalent to the mass of mercury in the scrap input. Mercury is neither created nor destroyed in the BOPF and, based on our understanding of the steelmaking process, the primary source of mercury emissions is mercury contained in the scrap feedstock. Thus, the EPA determined it was reasonable to set a standard that limits the amount of mercury that may be emitted per ton of scrap processed.

Because we collected test data from BOPF Groups at all facilities in the industry, we necessarily collected test data from the best performing sources. We then used the test data to develop mercury-to-scrap input ratios for the facilities' BOPF Groups and used the best performing five facilities out of all 11 integrated iron and steel facilities in the source category to develop the data set to derive the input-based MACT floor for existing sources for mercury, pursuant to CAA section 112(d)(3). For new sources, we established a standard no less stringent than the emission control achieved in practice by the best controlled source, as determined by the Administrator, pursuant to CAA section 112(d)(3).

Once we established the MACT floor data set, we then determined an upper prediction limit (UPL) [14] to develop the mercury MACT standard that incorporates the potential variability in future measurements. The EPA's MACT analyses use the UPL approach to identify the average emission limitation achieved by the best performing sources to determine the MACT level of performance, or MACT emission limit, as described in the EPA memorandum titled *Mercury Emissions, Controls, and Costs at Integrated Iron and Steel Facilities* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0958). The EPA uses this approach because it incorporates the average performance of the best performing sources as well as the variability of the performance during testing conditions. The UPL estimates what the upper bound of future values will be based upon present or past background data. The UPL approach encompasses all the data point-to-data point variability in the collected data, as derived from the dataset to which it is applied. We then took the mercury mass-to-scrap input ratio from the lowest-emitting facility in regard to mercury and used this value to establish the new source standard, after applying the same UPL procedure. Details of this procedure also are described in the technical memorandum cited above.

After calculating the MACT floor, the EPA evaluated and considered a beyond-the-floor option pursuant to CAA section 112(d)(2) based on ACI. However, for the reasons explained in the proposal preamble, including the relatively high capital and annualized cost of ACI with baghouses, and poor cost effectiveness, the EPA did not propose a beyond-the-floor option and instead proposed the MACT floor emission limits for new and existing sources as described above in this preamble. Additional details of the development of the proposed mercury emission limits and beyond-the-floor analyses are available in the proposed rule preamble and technical document titled *Mercury Emissions, Controls, and Costs at Integrated Iron and Steel Facilities* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0958).

With regard to compliance with the proposed mercury emission limits, we proposed that facilities would have two options to demonstrate compliance with the proposed input-based MACT emission limit: (1) Conduct a performance test annually at all BOPF-related units and convert the sum of the results to input-based units (*i.e.,* lbs of mercury per ton of scrap input) and document the results in a test report that can be submitted electronically to the delegated authority with the results; or (2) certify that the facility obtains all of their scrap from NVMSRP participants (or similar program as approved by the delegated authority), or establish that the facility's scrap is not likely to contain mercury switches.

In the proposal preamble (84 FR 42704), we explained that although we did not know exactly what type of scrap was used when the integrated iron and steel facilities performed the ICR testing for mercury, we assumed the scrap was either NVMSRP scrap or scrap with higher amounts of mercury per ton of scrap than NVMSRP scrap. In response to the proposal, industry (AISI and one facility, U.S. Steel) submitted comments [15] stating that the performance tests conducted to establish the MACT floor limits and, thus, the MACT for mercury in the proposal were based on facilities participating in the NVMSRP. We expect NVMSRP scrap in the future will contain similar levels of mercury or, more likely, less mercury than the scrap used to develop the MACT floor limits because the amount of mercury in scrap is declining overall due to the ban on the use of mercury in switches in U.S. automobiles after 2002, the expected continual retirement of older vehicles, and success of the NVMSRP. Based on the EPA's understanding of the NVMSRP and the commitments made by the parties in the memoranda of understanding, the NVMSRP scrap constitutes some of the cleanest, if not the cleanest, scrap available in terms of mercury content. Therefore, if a facility chooses to comply with the mercury emission limit by certifying that all their scrap is from NVMSRP participants (or a similarly-approved program) or establishes that their scrap does not contain mercury switches, it is also reasonable to conclude that the amount of mercury left in the scrap due to the removal of mercury switches by the

[13] Basic oxygen process furnace group is defined to be the collection of BOPF shop steelmaking operating units including the BOPF primary units (BOPF emissions from oxygen blow for iron refining); BOPF secondary units (secondary fugitive emissions in the shop from iron charging, steel tapping, and auxiliary processes not elsewhere controlled); ladle metallurgy units; and HMTDS and slag skimming units that are operating at the time of each mercury test sequence.

[14] Westlin, P., and R. Merrill. *Data and procedure for handling below detection level data in analyzing various pollutant emissions databases for MACT and RTR emissions limits.* U.S. EPA, Research Triangle Park, North Carolina. December 13, 2011 (revised April 5, 2012) (Docket ID Item No. EPA–HQ–OAR–2002–0083–0857).

[15] ''*Comments of the American Iron and Steel Institute and United States Steel Corporation on Proposed National Emission Standards for Hazardous Air Pollutants: Integrated Iron and Steel Manufacturing Facilities Residual Risk and Technology Review 84 FR 42,704 (Aug. 16, 2019) and Notice of Comment Period Reopening 84 FR 53,662 (Oct. 8, 2019).*'' Docket ID No. EPA–HQ–OAR–2002–0083. Submitted November 7, 2019.

NVMSRP achieves at least the same level of mercury reduction or likely better reduction compared to the numeric MACT floor limits.

By finalizing this emissions standard for mercury and two options to demonstrate compliance, the EPA has fulfilled its legal obligations under CAA sections 112 (d)(2) and (d)(3).

Comment: One commenter supported the EPA's proposal to continue to rely on the NVMSRP as an effective and efficient means of reducing mercury emissions in the steel industry. The commenter stated mercury is not an ingredient in steel, nor is it intentionally added in the steelmaking process; however, mercury is a contaminant sometimes present in scrap metal feedstock. The commenter acknowledges that the EPA correctly stated in the proposal that the primary source of mercury contamination in scrap metal is mercury-containing convenience switches that were used in automobiles until their use was phased out in model year 2002.

The commenter stated the NVMSRP has been a component of the NESHAP for Area Source Electric Arc Furnaces (EAF) Steelmaking Facilities in 40 CFR part 63, subpart YYYYY (''subpart YYYYY'') for over a decade. As evidenced by the EPA's own data, the commenter noted that the program has been highly effective in removing mercury from scrap feedstock and reducing mercury emissions from EAF mills. The commenter stated as EAF steel production uses a feedstock of nearly 100-percent steel scrap, Steel Manufacturers Association and its members have gone to great lengths to prevent mercury switches and other sources of mercury contamination from entering the scrap metal recycling stream. Foremost among those efforts, the commenter stated, is the development of the NVMSRP in 2006. Since that time, the commenter noted that the NVMSRP and its participants have removed and safely diverted from the scrap supply and environment over seven million mercury convenience light switches containing nearly 7.8 tons of mercury. By removing these switches from scrap feedstock, the commenter stated, the steel industry prevented that mercury from being charged into its furnaces and released into the atmosphere.

The commenter agreed with the EPA that the amount of mercury emitted from steel manufacturers using scrap metal as feedstock has declined significantly due to the elimination of mercury-containing switches in cars in 2002 and the steel industry's efforts through the NVMSRP to ensure that those remaining mercury switches are not charged into steelmaking furnaces. Critically, the commenter stated, the removal of mercury from convenience switches in cars is only one part—albeit, an important part—of a larger trend toward removing mercury from products. The commenter stated that all available data show the downward trend in mercury emissions is continuing and will continue until there are so few remaining pre-2003 vehicles reaching the end of their useful lives that mercury emissions will cease to be an issue for the steel manufacturing industry.

The commenter stated that the facilities in the Integrated Iron and Steel Manufacturing Facilities source category that use automotive shredded scrap inputs obtain automotive shredded scrap solely from suppliers participating in the NVMSRP.[15] Furthermore, the commenter stated, the performance tests conducted to establish the MACT floor limits and, thus, the MACT limits for mercury in this rule were based on these very facilities participating in the program. The commenter stated the NVMSRP seeks to ensure that mercury switches are removed from scrap used in integrated iron and steel and other industries' production processes; this approach allows for responsible recycling of vehicles while minimizing the likelihood of mercury emissions from companies using this scrap to make new products. Based on this, the commenter asserted the EPA has appropriately proposed to account for the NVMSRP.

Response: We agree with the commenter that mercury is not intentionally added to the steelmaking process, that the NVMSRP works to remove mercury from the scrap supply, and that the level of mercury in steel scrap should continue to decline in the future because, based on available information and our analyses, the overwhelming majority of the mercury originates from mercury-containing convenience switches that were used in automobiles until their use was banned in the U.S. after model year 2002.

Comment: One commenter stated that because mercury emissions from scrap consuming facilities are caused by contamination in the scrap feedstock, mercury emissions are necessarily random and episodic. The commenter stated the intermittence of these emissions—and the widespread reduction in sources of mercury contamination—strongly weigh against the imposition of specific numerical limits. The commenter recognized that the EPA believes the Agency is legally compelled to promulgate numerical mercury limits, and the commenter takes no position on whether the Agency is compelled to do so in this rulemaking. The commenter viewed these limits as inappropriate given the nature of mercury emissions in scrap-consuming facilities. The commenter asserted the NVMSRP remains a highly protective and effective surrogate for numerical limits and recommended that the EPA continue to rely on it as such.

Response: As explained above, the EPA has decided to promulgate a mercury emission limit for the BOPF and related processes pursuant to section 112(d) of the CAA in part, to address a 2004 petition for reconsideration. The steel-making units, although by definition a batch process, operate on a cycle where one batch starts as soon as the previous one ends so that the furnace remains operating almost all the time (except for occasional maintenance or repair activities) to prevent cooling and the need to reheat. Three test runs are required for a performance test. The steelmaking process cycle, although a batch process, is sufficiently long enough to allow at least one test run in each cycle. Because the scrap content and amount of mercury in each batch may change from batch to batch, using an average of three runs to develop the standard that the facilities will use to determine compliance (or for any other testing purpose) contributes to the accuracy of the data and, therefore, is to the benefit of both steel facilities as well as the EPA. The final three-run test average, then, is considered representative of typical operations and not just one ''batch.'' Therefore, the EPA determined it was feasible and reasonable to develop a numerical emission limit based on the data we had. However, as explained above, the EPA is including two options to demonstrate compliance: (1) Conduct performance testing; or (2) certify scrap is obtained from suppliers who participate in the NVMSRP or similar program, or is free of mercury switches. With this final rule, the EPA has fulfilled its legal obligations under CAA sections 112(d)(2) and (3) to set emission standards for mercury.

Comment: The commenter stated that the use of a 99-percent UPL to develop the MACT floor for mercury is appropriate and consistent with the EPA's approach in other rulemakings. The commenter stated the ability of the UPL, however, to properly account for variability here is in question, given that 80 percent of the sampling results included at least one mass fraction below the detection limit (non-detect), and 8 percent of total runs included all

non-detect values. In sum, the commenter stated only 12 percent of runs included all detected results, severely limiting the above-detection-limit dataset on which the UPL calculation was based.

Response: In the procedure the EPA uses to develop the MACT standards, the calculated UPL is compared to three times the HAP and method-specific ''representative detection level'' (RDL) developed by the EPA, and the higher value of the two (UPL v. 3xRDL) is used as the MACT standard. This step ensures that the final MACT floor values will be a measurable above-detection-limit value. (See Westlin and Merrill, 2011[14]). When multiplying RDL by a factor of 3, the measurement imprecision is decreased to around 10 to 15 percent. Using the larger value for the MACT standard ensures that measurement variability is adequately addressed.

In regard to the number of below detection limit (BDL) values, see the procedure from the EPA memorandum titled *Determination of ''Non-Detect'' from EPA Method 29 (Multi-Metals) and EPA Method 23 (Dioxin/Furan) Test Data When Evaluating the Setting of MACT Floors Versus Establishing Work Practice Standards* (S. Johnson, U.S. EPA, June 5, 2014) located in the docket to this final rule. In the memorandum (page 8, item 3), there is a discussion of a procedure for data classification for mercury and nonmercury metals obtained via EPA Method 29. According to the procedure: ''Where test results for any single analyte are detection level limited (DLL) or above detection limit (ADL), we assume detection (*i.e.,* ADL) for that test run data for that specific analyte.'' Therefore, the integrated iron and steel mercury data classified as DLL, at 80 percent, are considered ADL and consequently, the number of runs considered ADL is 92 percent, a clear majority of the data set. See summary table of the MACT floor run data below.

TABLE 4—INTEGRATED IRON AND STEEL SOURCE MERCURY MACT FLOOR RUN DATA CLASSIFICATIONS

Source	Data	Number of runs				Percentage of total runs		
		BDL	DLL	ADL	Total	BDL	DLL	ADL
BOPF Group	Before reclassification[1]	7	73	11	91	8	80	12
	After reclassification[2]	7	0	84	91	8	0	92

[1] From the memorandum titled *Mercury Emissions, Controls, and Costs at Integrated Iron and Steel Facilities* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0958).

[2] As per the procedures described in the memorandum titled *Determination of ''Non-Detect'' from EPA Method 29 (Multi-Metals) and EPA Method 23 (Dioxin/Furan) Test Data When Evaluating the Setting of MACT Floors Versus Establishing Work Practice Standards.* S. Johnson, U.S. EPA, Research Triangle Park, North Carolina. June 5, 2014.

Comment: A commenter stated the EPA's equating of hourly mercury test results with annual mercury rates and use of annual scrap usage to determine lbs of mercury per ton of scrap value is problematic for several reasons. The commenter stated that hourly mercury tests only account for the amount of mercury in the scrap at the time of the test and are not normalized for fluctuations in the short-term scrap usage rates, short-term scrap/iron ratios, or scrap and lime mercury concentration. The commenter asserted the differences in the mercury emissions rates between facilities and their respective operations are not appropriately accounted for in the EPA's calculations, based on the amount of scrap and mercury concentration in the scrap during the time of the test, which could add variability not properly factored into the EPA's calculations. The commenter stated it is inappropriate to assume that the type of scrap, scrap usage, and scrap-to-molten iron ratio at the time of the test were indicative of the long-term averages. Thus, the commenter stated, this critical element of the proposal's analysis is unjustified and cannot support standard-setting. In addition, the commenter stated that although the proposed standards in 40 CFR part 63, subpart FFFFF, Table 1 are intended to be set at the CAA section 112(d) floor level, they fail to account for the degree of variability present in steelmaking inputs and, thus, go beyond the floor without proper justification.

The commenter also stated the EPA's annualized approach (lbs/yr mercury ÷ ton scrap/yr) resulted in the skewness and kurtosis data analyses being represented as a lognormal distribution, whereas the output-based steel production approach (that accounts for short-term production rates) is skewed non-normal distribution, according to the prescribed MACT floor methodology. The commenter stated that since the mercury emissions data sets are the same between the two input- and output-based approaches, one could properly conclude that the annualized approach is not adequately accounting for the short-term production rate variability and, thus, it may be comparatively less representative of actual variability in mercury emissions during operations.

The commenter stated the EPA's analysis appears not to have accounted properly for the scrap mercury content variability and, thus, does not adequately apply the UPL concept of ensuring that sources controlled to the level of the best performing five sources would achieve the limit 99 percent of the time. The commenter stated that, as proposed, the UPL calculation does account for some degree of variability. However, the commenter stated the EPA needs to revisit the associated MACT floor calculations to better represent the variability among individual loads of scrap in terms of the variability in mercury content and the associated long-term emission performance in assessing the emission limit that is achieved by the top five performing sources or UPL.

The commenter asserted that the EPA should calculate the variability using all viable mercury emissions stack testing results in the UPL analysis and then apply that variability factor to the five best performing sources. Particularly when there is a small dataset for which the raw material content is indicative of emissions, the commenter asserted that the EPA needs to determine the variability that can reasonably be expected from the top performers. Given that the facilities in question were all accepting scrap from suppliers in the NVMSRP, the commenter said the variability in scrap obtained from such suppliers is reflected in all of the test results, not just the top five performers.

The commenter noted that in the NESHAP for the EAF source, which used similar scrap inputs as the Integrated Iron and Steel Manufacturing Facilities source category but at much greater volumes and proportions, the EPA recognized that an additional scrap variability factor would be needed to account for variation in mercury emissions if an emission limit was to be developed. Therefore, the commenter

stated, although the EPA did not ultimately establish a numeric mercury emission limit, working documents from development of the EAF rule show a ''scrap (mercury) variability'' factor was applied in an attempt to develop a mercury limit. The commenter stated that the EPA cited the variability of mercury in scrap metal as the reason why performance test averages varied by over 2 orders of magnitude at a single EAF plant. (72 FR 53817). The commenter stated that if the EPA decides to proceed, it needs to seek additional data regarding scrap mercury content and variability similar to the approach the EPA considered with the EAF NESHAP so that the UPL can account for that variability using standard and accepted methods.

The commenter stated rather than the approach the EPA took in the proposal of calculating the mercury per ton of scrap values by using a source's annual total scrap input tonnage, the EPA should refine its approach by comparing the scrap tonnage used in the individual heats when the ICR stack test results were obtained. Moreover, the commenter stated the EPA should look not only at the total scrap used for those heats, but also to the extent possible based on available records, the proportion of automotive shredded scrap used in those heats. The commenter stated this approach would be far more accurate than the one reflected in the proposal, which fails to account for any relation between the stack test data and the scrap used at the time those results were obtained. The commenter stated that failure to take this critical factor into account renders the standard not rationally related to the performance of the top performing sources and, thus, arbitrary and capricious.

Response: Because scrap varied from unit to unit and facility to facility, the variability in the scrap was already accounted for in the data used to develop the MACT floor. We used data for the mercury content of scrap from all units in the BOPF Group [13] at the top five best performing facilities from five locations in three states that stretched from Chicago, Illinois, to Pittsburgh, Pennsylvania. Over 100 runs of data were used to develop the facility lbs mercury/ton steel scrap values used to calculate the UPL. The variability in the scrap in the over 100 runs was almost certainly captured by the UPL calculation for the MACT floor.

In addition, the procedure the EPA uses to develop the MACT standards allows for variability in future emission measurements. To determine the MACT standard, an initially calculated UPL is compared to 3 times the HAP- and method-specific representative detection level (RDL) developed by the EPA, and the higher value is used as the MACT standard. This step ensures that the final MACT floor values will be measurable ADL values. (See Westlin and Merrill, 2011.[14])

As explained at the following website, a lognormal distribution is a type of skewed distribution (see *https://www.statisticshowto.datasciencecentral.com/lognormal-distribution/; https://www.investopedia.com/terms/s/skewness.asp*). A lognormal distribution leans toward the right because all values are above zero, by definition of a log. ''Skew'' refers to distortion or asymmetry as compared to a symmetrical bell curve, or normal distribution, in a set of data. If the curve leans towards the left or to the right, it is said to be skewed. Skewness can be quantified as a representation of the extent to which a given distribution varies from a normal distribution. A normal distribution has a skew of zero, while a lognormal distribution has some degree of right-skew. Both the input- and output-based approaches to calculate a mercury MACT limit are skewed because they are both lognormally distributed.

With regard to the mercury MACT calculations, when data from the same facilities were compared, the variability of the lbs mercury/ton scrap input dataset had more variability than the lbs mercury/ton steel output variability. Consequently, more variability is incorporated into the UPL calculation for the input-based standard than for an output-based.

Not every facility reported run-by-run scrap tonnage values to the EPA in the ICR, whereas every facility reported an annual scrap tonnage value. In addition, almost all facilities did not report percent automotive scrap use during testing or annually. Most facilities left this ICR answer field blank, said it was confidential, or was unknown. Therefore, the annual approach was the only option available to the EPA based on the data provided to the EPA by the integrated iron and steel facilities.

Comment: One commenter stated although the EPA's MACT floor calculation includes a mass concentration value for mercury content in lime, as is discussed in an attached engineering report providing independent evaluation by Barr Engineering Co. commissioned by AISI/U.S. Steel, the MACT floor calculation fails to account for potential mercury variability in lime inputs as the EPA has appropriately done in other contexts. The commenter stated this approach fails to account for variability in a manner that is appropriate for the source category.

Response: We agree with the commenter's Barr evaluation that some mercury emissions can be attributed to the other inputs to the BOPF, which include lime. However, the stack performance test data the EPA collected through the 2011 ICR would account for the lime portion of the mercury emissions and include some of the variability in emissions as well. Variability is accounted for both by the number and length of the source test runs and the fact that multiple sources were tested. Our MACT floor calculation relied on this data and, thus, accounted for variability in lime inputs. At this time, we do not have additional data regarding variability in lime inputs. The Barr evaluation cites the Portland Cement UPL calculation as an example of the EPA accounting for mercury variability in lime inputs in the UPL MACT floor calculation. The commenter pointed to the ''Intra-quarry Variability Estimate for Mercury'' memorandum for the Portland Cement NESHAP (40 CFR part 63, subpart LLL) memorandum (Docket ID item No. EPA–HQ–OAR–2002–0051–3323), and stated that, in that rulemaking, the EPA had 30 daily mercury concentrations, parts per million (ppm) in limestone by quarry values for three kilns that were in the MACT floor pool or used the same quarry as MACT floor pool kilns. The commenter also stated that those values were used to calculate temporal correlation between the quarries and calculate intra-quarry variability. That information, the commenter asserts, was then incorporated into the Portland Cement UPL MACT floor calculation. The commenter is correct that the EPA does not have direct data regarding mercury content of the lime used at the integrated iron and steel industry. For the integrated iron and steel ICR, facilities had to report the amount of lime used annually, but not the mercury content of that lime.

As shown in the memorandum titled *Mercury Emissions, Controls, and Costs at Integrated Iron and Steel Facilities* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0958), Table 4, the mercury from lime was estimated to comprise less than 15 percent of the total mercury inputs to the BOPF, on average. The value for mercury content of lime, at 0.03035 ppm, was developed from the average of data from two reference sources. One reference source was the information (Limestone Mercury Concentrations (ppb) with Revised Data from Buzzi. July 21, 2009) gathered for

the Portland Cement NESHAP (40 CFR part 63, subpart LLL; Docket ID Item No. EPA–HQ–OAR–2002–0051–3400) and the other source was from a Portland Cement Association research report (Hills and Stevenson, 2006; Docket ID Item No. EPA–HQ–OAR–2002–0083–0872).

The EPA estimated that mercury in the scrap accounts for over 85 percent of the total mercury inputs to the BOPF and constitutes the vast majority of mercury content; therefore, regulating the scrap input is sufficiently correlated to the numeric emission limitation for mercury to enable setting a standard for mercury from scrap. And, as noted above, as a result of the robustness of the mercury emission data used and the calculations performed to develop the MACT standard (UPL, etc.), we have accounted for the variability of mercury in both the scrap and lime. The mercury emission limitations are based on the best data available to the Agency and satisfies our obligation under CAA section 112(d) to establish a standard for mercury emissions from the BOPF. For information on the data used to develop the MACT floor, see the memorandum titled *Mercury Emissions, Controls, and Costs at Integrated Iron and Steel Facilities* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0958).

Comment: One commenter stated that with a small source category, and, thus, small number of sources setting the floor, a proper UPL analysis is essential to a technically defensible standard that is consistent with the statute. The commenter stated the EPA's technical memorandum regarding its mercury floor calculations acknowledges, however, that its dataset including just five data points is small and, in fact, below the minimum of seven data points that the EPA considers the threshold for a ''limited dataset.'' The commenter stated that this limited dataset is the result of calculating a mercury emissions per ton of steel scrap value for only the top five sources in the source category and then running the UPL calculation based only on those five sources.

Response: The BOPF Group existing source MACT floor pool dataset (five data points) is based on fewer than seven data points. Therefore, the EPA used the protocol for developing MACT floors for small datasets. (See technical memorandum titled *Mercury Emissions, Controls, and Costs at Integrated Iron and Steel Facilities* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0958)). For limited datasets, the EPA can further evaluate each individual dataset in order to ensure that the uncertainty associated with a limited dataset does not cause the calculated emission limit to be so high that it does not reflect the average performance of the units upon which the limit is based after accounting for variability in the emissions of those units. The EPA evaluated this specific integrated iron and steel mercury dataset to determine whether it is appropriate to make any modifications to the approach used to calculate MACT floors for each of these datasets. The EPA ensured that the selected data distribution best represents each dataset; ensured that the correct equation for the distribution was then applied to the data; and compared individual components of each limited dataset to determine if the standards based on limited datasets reasonably represent the performance of the units included in the dataset. Based on an evaluation of the limited datasets, the EPA determined that no changes to the standard floor calculation procedure were warranted.

For new sources, in the EPA's experience from the past, limited datasets warranted close scrutiny because sources with the lowest average emissions, but with a relatively high variance, could be identified mistakenly as the best performing source. In the mercury emission limit for new integrated iron and steel sources, the best performing source identified had 28 data points in the MACT floor pool, so it is not a limited dataset, nor does it have relatively high variance. Therefore, we conclude that further inspection of the existing emissions datasets is not warranted.

Comment: One commenter stated given the need to finalize this RTR in March 2020 and given that any data collection and analysis needed to generate a sound mercury emission limit would take at least a year, the EPA should not finalize the mercury emission limit at this time but instead should withdraw it and defer action to a later date to allow the EPA to address the flaws in the proposed standard. The commenter stated the proposed mercury emission limit should be withdrawn and, if the Agency ultimately determines a standard must be set, the EPA should issue a new, separate proposal because the changes necessary to both the dataset and the floor setting methodologies are sufficiently great that interested persons will need an opportunity to comment on the EPA's efforts to address them. In short, the commenter stated any mercury gap-filling should proceed on an independent track from the RTR, and it would be arbitrary and capricious for the EPA to finalize a mercury emission limit in reliance on the limited data it has and particularly using the flawed methodologies reflected in the proposal.

The commenter stated the EPA can and should determine that it currently lacks adequate data to establish a mercury emission limit, in light of the limited timeframe allowed under the judicial deadline to complete this rulemaking. The commenter stated such a decision would be afforded an ''extreme degree of deference'' by the Court on review. The commenter stated the EPA's obligation under the court order is to complete the RTR. The commenter stated filling a perceived gap in the original standard is not mandated under CAA section 112 generally and certainly is not compelled to be part of the RTR. Accordingly, the commenter stated the EPA need not finalize the mercury proposal by the March 2020 RTR deadline. The commenter stated if the EPA promulgates now, the standard will necessarily lack adequate data and a record to support it and, thus, would not only be ill-advised, but also arbitrary and capricious.

Response: The EPA opted to promulgate these mercury emission limits at the same time we conducted the RTR in part to address an outstanding petition for reconsideration asking the Agency to set a mercury emissions standard. The data used for the mercury emission limit were stack test data obtained using typical mercury testing methodology and the procedures we followed to develop the MACT limits were typical MACT standard development procedures. The mercury data are not flawed, as explained elsewhere in this preamble in responses to commenters' specific allegations. All alleged flaws have been addressed above in responses to comments received, and we have shown that the allegations were unfounded and/or lacking scientific basis and that the EPA data and data handling procedures were performed correctly to develop the numeric emission limitation. Thus, we did not make any changes to the mercury emission limit in response to comments received. The mercury emission limitation promulgated in this rule is based on the best data available to the Agency and satisfies our obligation under CAA section 112(d) to establish a standard for mercury emissions from the BOPF.

Comment: One commenter stated if the EPA proceeds with a mercury emission limit, the proposal to allow facilities to satisfy the mercury requirements by certifying that their scrap is ''not likely to contain motor vehicle scrap'' in the proposed rule, *e.g.,* proposed 40 CFR 63.7791(b) (final 40 CFR 63.7791(d)), is reasonable but needs

to be revised to better match the requirements in 40 CFR 63.10685(b) in 40 CFR part 63, subpart YYYYY. For example, the commenter stated the EPA needs to clarify that the option applies to ''scrap not likely to contain automotive *shredded* scrap,'' rather than all ''motor vehicle scrap'' as it is currently proposed; regulatory language changes should be made to reflect this clarification. This is because mercury switches, the commenter stated, the driver of mercury emissions, are not present in all motor vehicle scrap; rather, mercury switches are typically only present in *shredded* automotive scrap. The commenter stated facilities should, thus, be able to comply by certifying that scrap inputs are not likely to contain automotive shredded scrap. The commenter recommended the EPA modify proposed 40 CFR 63.7791(a)(1), 63.7791(a)(2), 63.7791(b)(1), 63.7791(b)(2), 63.7791(c), 63.7840(f)(1), and 63.7852 (final 40 CFR 63.7791(c)(1), 63.7791(c)(2), 63.7791(d)(1) through (d)(3), 63.7791(e), 63.7840(f)(1), and 63.7852, respectively) definitions for motor vehicle scrap, scrap provider, and steel scrap accordingly.

Response: The EPA acknowledges the clarification requested by the commenter and has incorporated these suggestions as much as appropriate into the final rule. We agree with the commenter that given today's automobile fleet, where motor vehicles from 2003 production and earlier still contain mercury switches, the scrap containing mercury switches is typically shredded automotive scrap. We have revised the proposed option that would have allowed facilities to comply by certifying that the facility's scrap is ''not likely to contain motor vehicle scrap.'' As finalized, this option has been changed to allow facilities to comply by certifying that the facility's scrap ''does not contain mercury switches.'' This approach allows facilities to establish the absence of mercury switches in their scrap, as appropriate for their facility, *i.e.,* their scrap is recovered for its specialty alloy content, their scrap does not contain motor vehicle scrap, or their scrap does not contain shredded motor vehicle scrap.

Comment: One commenter stated facilities that use small amounts of automotive shredded scrap relative to other inputs per ton of steel produced, even from non-NVMSRP suppliers, would not be expected to emit mercury at levels exceeding the emission limitations reflected in the proposed rule. As the proposal acknowledges, the commenter stated that the mercury content associated with mercury switches in older, end-of-life vehicles is the basis for the mercury emission limit. The commenter stated mercury switches are not present in all scrap, and not even in all automotive scrap; rather, mercury switches are only potentially present in shredded automotive scrap. Because of this, the commenter stated, facilities using small amounts of automotive shredded scrap would not be expected to have mercury emissions in excess of the proposed standard. Thus, the commenter stated, sources using minimal amounts of automotive shredded scrap should not be burdened with the costs of testing or documenting participation in the switch recovery programs, particularly given the low risk modeled for the source category.

The commenter stated the EPA should modify the proposed 40 CFR 63.7791(b) to allow facilities to instead certify that they use only minimal amounts of automotive shredded scrap inputs, such as 10-percent automotive shredded scrap per ton of steel produced. So long as a facility does not use more automotive shredded scrap than the threshold, the commenter stated that certification should constitute its compliance demonstration; this would enable facilities that use very minimal amounts of automotive shredded scrap or that use automotive shredded scrap only occasionally based on the scrap supply market, and are, thus, unlikely to exceed the mercury emission limit, to be deemed compliant, as well.

The commenter added the EPA should acknowledge that when the NVMSRP ends this event will, in essence, establish compliance with the proposed mercury emission limit because it will signal achievement of substantial elimination of mercury switches from automotive scrap. Consistent with the compliance option for the proposed mercury requirements of allowing purchase of scrap from NVMSRP participants, the commenter stated the EPA should include in any final rule a provision that when the NVMSRP ends, sources would be deemed compliant with the mercury emission limit (because the commenter stated the EPA would have deemed that the NVMSRP is no longer needed to reduce mercury switches from automotive scrap).

The commenter stated the EPA should revise proposed 40 CFR 63.7791(c) or add a new 40 CFR 63.7791(d) to allow sources to otherwise show that their shredded motor vehicle scrap is unlikely to contain mercury. For example, the commenter stated, if the NVMSRP has ended with a finding that the mercury switches remaining in vehicles on the road are minimal, the fact that there is no need for such a program establishes the diminished presence of mercury. Or, the commenter stated, if a scrap dealer uses only recycled post-2003 vehicles, the use of this automotive scrap should not contain any appreciable mercury. In other words, the commenter stated, at some point the number of recycled vehicles containing mercury switches will diminish to the extent that mercury in automotive scrap is no longer a concern. At this point, the commenter stated, facilities should be able to rely on some provision in 40 CFR 63.7791 to conclude that their scrap is unlikely to contain mercury switches. The commenter stated such an approach is reasonable because the standard is driven by the use of automotive shredded scrap at BOPF shops and the mercury content in that scrap, and the NVMSRP is aimed at removing mercury switches from automotive shredded scrap. The commenter stated meeting the NVMSRP's program goals, which should be the rationale for ending the program, will occur when mercury switches are sufficiently removed from automotive scrap. When that has occurred, the commenter stated, it will mean that the remaining automotive scrap inputs available to integrated iron and steel facilities will in effect satisfy the NVMSRP criteria, and facilities should be considered to be in compliance with the mercury emissions standard. In that case, the commenter stated, it would not add value to require further compliance with the administrative burdens associated with complying with the standard, since the source will have been effectively eliminated.

Response: The commenter appears to be asking the EPA to create an exemption from the requirements for certain sources and to not regulate the mercury emissions from those sources. In other words, the commenter is asking the EPA to read a de minimis exemption into the requirement that the EPA regulate all HAP emitted by major sources. The court, however, has previously upheld the EPA's rejection of this argument on the grounds that the statute does not provide for de minimis exemptions where a MACT floor exists. *See Nat'l Lime Assn.* v. *EPA,* 233 F.3d 625, 640 (D.C. Cir. 2000). For this reason, the EPA is not making any changes to the proposed rule to create an exemption for de minimis mercury emissions as per this comment.

However, in the final rule, the compliance option in 40 CFR 63.7791(d) ''*Use of scrap that does not contain mercury switches*'' can be used by a source if the facility can establish that

their scrap does not include mercury switches. This option is available regardless of whether or not the NVMSRP is in operation. If the NVMSRP were to be discontinued, however, the fact that the program had been discontinued would not establish the mercury level, or lack thereof, in the scrap. Thus, the potential scenario of NVMSRP discontinuation could not be relied upon to demonstrate compliance with the mercury emission limit.

Comment: One commenter stated the proposed standards for the integrated iron and steel source category are very similar to the requirements for facilities in the EAF area source standards to obtain scrap from participants in the NVMSRP and therefore the EPA should reconcile this rule with the EAF rule. The commenter stated the rule language should be revised to maintain consistency with the existing EAF NVMSRP regulatory language.

As background, the commenter explained that some companies with facilities subject to the subpart FFFFF standards for integrated iron and steel sources also operate EAF facilities subject to the subpart YYYYY standards, and they purchase and manage scrap that is charged both into BOPF vessels and the EAF at a corporate level, using the same policies and management methods to obtain scrap for both source categories. Since these companies have area source EAF facilities that must comply with the mercury switch program requirements in subpart YYYYY, the commenter stated their entire scrap management system is already compliant with the motor vehicle scrap management requirements in those standards. The commenter stated the language differences between subpart YYYYY and the proposed subpart FFFFF motor vehicle scrap management requirements could cause issues in managing these companies' scrap supply chains and ensuring compliance with both regulations. The commenter stated the proposal does not explain why these differently worded requirements are being imposed on integrated iron and steel facilities, particularly given that EAF sources use a greater proportion of scrap inputs than integrated iron and steel BOPF sources and that doing so would impose burdens on facilities, including the need to modify contracts and additional administrative costs. Because of the identical supply chain for BOPF shops and EAFs, the commenter stated there should be no differentiation in the requirements. The commenter suggested revisions to the proposed language 40 CFR 63.7791(b) (final 40 CFR 63.7791(d)) and to add allowance for specialty metal scrap from motor vehicles.

Response: The EPA agrees with the rationale for the suggested changes and we have made revisions to the rule to make this rule more similar to 40 CFR part 63, subpart YYYYY, as described below in section IV.C.5. In terms of NVMSRP participation, the proposed rule was identical to subpart YYYYY except for the scrap plan requirement; we have removed the scrap plan requirement in the final rule. As discussed above in a previous comment, in the final rule, we have revised the proposed option that allowed sources to comply by certifying that the facility's scrap is ''not likely to contain motor vehicle scrap.'' As finalized, the facility can establish compliance with the mercury emission limit by certifying the absence of mercury switches in their scrap, as appropriate for their facility: By either certifying that their scrap is recovered for its specialty alloy content, or their scrap does not contain motor vehicle scrap, or their scrap does not contain shredded motor vehicle scrap.

Comment: One commenter stated the proposed annual testing for sources opting to comply under subpart FFFFF Table 1 should be revised to once per five-year title V permit term, which is consistent with frequencies for other title V testing requirements for the sources, such as for secondary BOPF baghouses. The commenter stated more frequent testing is unnecessary given that emissions are steadily declining among the source category in conjunction with the depletion of mercury switches in automotive scrap. If the EPA believes that more frequent than once-per-term testing is needed, the commenter stated EPA then should adopt a twice per five-year permit term, similar to the testing frequency for primary BOPF controls, given the high cost of testing. The commenter stated requiring annual testing would be excessive, costly, without basis, and inconsistent with any other requirements in the subpart FFFFF standards. In the event that EPA retains the annual testing requirement, the commenter stated revisions to the proposed language regarding time between performance tests should be made to clarify the point at which facilities should begin to calculate these dates.

Response: The EPA agrees with a reduction in testing frequency to coincide with tests for PM already promulgated in the rule (40 CFR 63.7821(b)) for units equipped with control devices other than a baghouse (which includes all of the primary BOPF control devices), which will reduce the testing burden on the industry. The change is as follows (for testing compliance option, only): Change from annual testing to twice per permit cycle (initial/final and mid-term) for facilities with title V permits, and every 2.5 years for facilities without a title V permit, to match the PM testing frequency in 40 CFR 63.7821. Testing would then take place after the initial performance test at the next specified point in the permit cycle, either at initial, final, or mid-term of the permit (for facilities with permits), whichever comes first after the initial performance test, which is one year after the effective date of the rule, or within 2.5 years after promulgation (for facilities without permits).

Comment: One commenter stated in any final rule, and consistent with the approach the EPA took in the ICR testing, the EPA should explicitly provide for similar units at a source to rely on the testing of one of those units for subpart FFFFF Table 1 compliance demonstration purposes, where the units are exhausted to the same type of control device, processed the same types of materials, were similar size and design, and have similar operating conditions.

Response: We understand the economic benefit associated with reducing the testing burden where possible. The EPA allows testing of representative units on a case-by-case basis as described in the 2009 EPA guidance document, *Clean Air Act National Stack Test Guidance,*[16] pursuant to the EPA's authority cited in the General Provisions to part 63 at 40 CFR 63.7(h). Similar to the requirements to establish similarity that was used in the integrated iron and steel ICR for this RTR, the stack test guidance requires submission of design and operating parameters to establish the case of identical units, as described further in the guidance, with the final decision to be determined by the Administrator or delegated authority. The EPA thus provides options for reducing testing burden and no addition to or modification of the rule is needed to provide this testing option.

Comment: One commenter stated the proposed 40 CFR 63.7825(a)(2) provision requires either a single compliance test with all affected units in operation or separate compliance tests on each emission unit in the BOPF Group. The commenter stated most facilities have multiple stacks that

[16] *Clean Air Act National Stack Test Guidance.* U.S. Environmental Protection Agency, Washington, DC. April 27, 2009. (Docket ID Item No. EPA–HQ–OAR–2002–0061). *https://www.epa.gov/sites/production/files/2013-09/documents/stacktesting_1.pdf.*

would need to be tested under the current Proposed Rule; simultaneously testing all stacks during a single compliance testing event would be difficult or impossible. The commenter stated this leaves the option of performing separate compliance testing on each emission unit. The commenter stated proposed 40 CFR 63.7825(a)(2) requires that when units are tested separately, they must be tested ''as soon as is practicable,'' which is not defined. The commenter stated the EPA should allow a three-month period for all stacks to be tested. To implement this, the commenter stated the EPA should create a new subparagraph, *e.g.,* 63.7825(a)(3), as follows: ''Testing of related BOPF Group units shall be conducted within a 3-month period.''

The commenter stated since the BOPF Group mercury limit applies to all BOPF shop steelmaking operation units, the compliance demonstration for performance testing requires mercury emissions from all BOPF Group stacks to be added up to demonstrate compliance. The commenter stated this calculation cannot be made until all BOPF Group sources have been tested. Under proposed 40 CFR 63.7840(e)(2), the commenter stated facilities are required to submit a notification of compliance status within 60 days of completion of the performance test. The commenter requested that EPA allow for one notification of compliance status to be submitted 60 days after the final performance test. The commenter also stated that in the proposal, facilities are required to provide a 60-day notification of intent to conduct performance testing. Therefore, the commenter requested that the rule also provide that the 60-day notice be submitted at least 60 days prior to the first BOPF Group unit control device test; then the initial testing notification can be required to include a schedule of when testing of other BOPF Group unit control devices will be tested, rather than require additional notification for subsequently tested sources.

Response: The EPA has decided that it is not appropriate to allow a three-month window for testing because this time period likely would include very different batches of scrap and possibly wide variation in levels of mercury. However, we discuss in the previous comment and response that EPA provides for facilities to be able to apply for a waiver of testing in the case of multiple and identical units via stack test guidance [16] pursuant to EPA's authority in 40 CFR 63.7(h). For the final rule, the EPA changed the requirement for a 60-day notification of the start of ''mercury compliance testing'' to ''notification of the first compliance test in the BOPF Group with a schedule of all subsequent tests in the BOPF Group.'' The final rule also differs from the proposed rule in that it states that ''for the purposes of submitting the notification of compliance status, the performance test shall be considered complete when the final BOPF Group unit control device is tested.'' These changes eliminate multiple start notices for testing of the BOPF Group and clarify that only one notice of compliance status is needed to show compliance with the mercury emission limit. Because all units in the BOPF Group must be tested before the mercury emissions can be calculated and compared to the emission limit in the rule, it is logical to require one notice of compliance status after the last BOPF Group unit is tested. See section IV.C.5 below for details of the rule changes.

Comment: One commenter stated mercury testing samples were collected during the ICR process following sampling procedures in 40 CFR 63.7822(f), (g), and (h), which dictate when sampling begins and ends during specific process BOPF operations for PM testing. The commenter stated the same procedures should apply to mercury testing and should be incorporated by reference in the mercury testing requirements. Accordingly, the commenter stated proposed 40 CFR 63.7825 should be modified to include the procedures in 40 CFR 63.7822(f), (g), and (h) as applicable.

Response: The EPA agrees that mercury testing samples were collected during the ICR process following sampling procedures in 40 CFR 63.7822(f), (g), and (h). Therefore, we have added these procedures to the final rule. See section IV.C.5 for details of the rule changes.

Comment: One commenter stated the 40 CFR 63.7825(b)(2) provision requires a minimum sample volume of 60 dscf of gas during each mercury test run. The commenter stated it is inappropriate to collect 60 dscf when using EPA Method 30B because the method itself contains guidelines for selecting proper sampling rates. The commenter stated the collection of 60 dscf should be clarified to only apply to EPA Method 29 or other isokinetic sampling methods.

Response: We agree with the commenter that EPA Method 30B has a method-specific volume requirement tied to the detection limit of the method, so we do not need to identify a minimum volume for EPA Method 30B in the rule. However, a sample volume of 60 dscf is appropriate for EPA Method 29. The rule text has been revised to specify that the 60 dscf minimum sample volume applies to Method 29 only. See section IV.C.5 for details of the rule changes.

Comment: One commenter stated the EPA should also include EPA Method 101A, *Determination of Particulate and Gaseous Mercury Emissions From Sewage Sludge Incinerators,* which is a viable alternative to both EPA Methods 29 and 30B.

Response: The EPA does not consider EPA Method 101A to be equivalent to EPA Method 29 for mercury measurement for all purposes. However, the EPA is willing to consider EPA Method 101A as an alternative test method under the General Provisions to 40 CFR part 63 (40 CFR 63.7(f)) on a case-by-case basis, provided the petitioner can provide adequate information demonstrating that this candidate method is equivalent to the standards (*i.e.,* EPA Methods 29 and/or 30B). The proposed rule text has been revised to elaborate on EPA's ability to allow alternative test methods to be considered on a case-by-case basis. See section IV.C.5 for details of the rule changes.

Comment: One commenter stated in order to use the NVMSRP or equivalent program option, the EPA lists in proposed 40 CFR 63.7791(a) and (c) a host of requirements that companies will need to meet. The commenter stated a key purpose of the NVMSRP was to have suppliers register and participate so that companies could rely on that participation to prevent mercury from entering their feedstocks in the form of automotive shredded scrap. The commenter stated since its initiation, the NVMSRP has proven to be a success. As recognition of that success, in 2017, the commenter stated that the EPA, along with the original parties to the 2006 agreement, came together to extend the program through 2021. The commenter stated unfortunately, the proposed language fails to recognize that the industry has substantially invested to make the program a success and instead would put individual companies in the role of policing the program. The commenter stated companies need to be able to rely on the program and that its suppliers are participants therein. The commenter stated nothing more should be required.

The commenter said specifically that the EPA should delete 40 CFR 63.7791(a)(3)–(5) and (c)(3)–(5). The commenter stated these provisions are inconsistent with the requirements that apply to the NVMSRP as it is considered an ''approved mercury program'' in 40 CFR 63.10685 in 40 CFR part 63,

subpart YYYYY. The commenter stated companies are not in a position to renegotiate supplier contracts to allow them to enter and inspect suppliers. Moreover, the commenter stated the EPA is unclear about what ''other corroboration'' even means in the context of the program; the participation of the suppliers in the program should be sufficient. Finally, the commenter stated any broker contracts would provide that the scrap needs to be from NVMSRP-participating suppliers and it is entirely unclear how the EPA expects companies to ensure that suppliers are ''implementing appropriate steps to minimize the presence of mercury in scrap from end-of-life vehicles.'' The commenter stated that this assurance is implicitly made by contracting for scrap from suppliers participating in the program.

The commenter stated while the EPA correctly states that companies are already participating in the NVMSRP, the requirements in the proposed rule take the verification process to a more burdensome level, which will impose significant additional costs. The commenter stated creating the plans required in the proposed rule is likely to far exceed the proposed approximate $1,000 estimate, given the labor and supervision required, not to mention ongoing plan updates. Moreover, the commenter stated the proposed cost estimate entirely excludes consideration of the massive costs that would be required to satisfy the due diligence obligations the proposed regulatory language would create. For example, according to the commenter, the proposed requirement to ''conduct periodic inspections or provide other means of corroboration to ensure that scrap providers and brokers are aware of the need for and are implementing appropriate steps to minimize the presence of mercury in scrap from end-of-life vehicles'' would impose an obligation on integrated iron and steel facilities that would be both onerous and expensive. The commenter stated it also would be potentially impossible to satisfy because existing contracts are in place that do not provide authority for the purchaser to inspect suppliers or otherwise ensure *their* ''appropriate'' implementation of mercury removal practices. If the plan is not removed, and a mercury emission limit is issued, the commenter said the EPA should revise the cost-effectiveness analysis to better account for the costs of the NVMSRP (or equivalent) program. Specifically, the commenter stated the proposal needs to better account for the cost of the NVMSRP option, which is estimated at $1,058 per facility and $11,638 across the industry, with similar costs assumed for certifying compliance not likely to contain automotive scrap.

The commenter stated instead of these requirements, as explained above, the EPA should simply require that the company to purchase from suppliers that state they are participating in the NVMSRP (which may be reflected on invoices or in contracts). The commenter stated additional obligations need not be imposed because the EPA's record for this rulemaking establishes that the NVMSRP is an effective program for removing mercury switches from shredded automobile scrap. The commenter stated the EPA can reasonably rely on that record.

The commenter stated similarly, just as the NVMSRP is an EPA approved program, any alternative ''approved mercury program'' contemplated in the proposal would have the same level of approval as the NVMSRP, and integrated iron and steel facilities should be able to rely on the stipulation in contracts with their scrap suppliers that any shredded automotive scrap received is from NVMSRP or similar EPA-approved program participants and is compliant with the program's standards.

Response: The EPA has considered the commenter's request and rationale, and has eliminated the proposed plan requirement in the final rule and instead is requiring facilities to both identify their scrap dealers or brokers and certify that these dealers and brokers participate in the NVMSRP or other EPA-approved program. See section IV.C.5 of this preamble for details of the rule changes.

Comment: One commenter stated the EPA proposes to require compliance with the proposed mercury emission limits within 1 year of publication of the final rule, and that all other amendments to the 40 CFR part 63, subpart FFFFF standards will become effective 180 days after publication of the final rule. The commenter stated these proposed compliance dates are inadequate to allow facilities to undertake all the necessary planning and operational adjustments needed to ensure compliance with the Proposed Rule. The commenter stated the EPA should not proceed to finalize the proposed mercury provisions with this RTR rulemaking, however, if the Agency proceeds to do so nonetheless, the EPA must provide a 3-year compliance period to allow facilities to comply. The commenter stated because the proposed mercury requirement constitutes new standard setting under CAA sections 112(d)(2) and (3), more time is needed for facilities to ensure compliance. The commenter stated the remaining proposed amendments to the 40 CFR part 63, subpart FFFFF standards will likewise require additional time for facilities to conform their existing practices. The commenter stated the EPA should, thus, extend the proposed effective date of 180 days after promulgation of the final rule to 1 year after that date.

Response: It is our understanding that all facilities are already participating in the NVMSRP and facilities have the option of complying with the mercury emission limit by certifying that all their scrap is from NVMSRP participants (or a similarly-approved program). Further, we determined 1 year after promulgation is sufficient for facilities to familiarize themselves with the new reporting requirements in the amended rule for this compliance option. For these reasons, we have concluded that it is reasonable to require existing sources to comply with the mercury requirements within 1 year. Existing sources will be given 180 days to comply with the changes to the SSM provisions in 40 CFR part 63, subpart FFFFF and all other new or revised requirements in this final rule, except the requirements for mercury. We have determined that there are no other compliance requirements as a result of this rule that require more than 180 days except for those for complying with the mercury emission limit and potentially for electronic reporting. Regarding the electronic reporting requirement, because we are revising the spreadsheet template for integrated iron and steel facilities as a result of comments discussed in section IV.E of this preamble, we are allowing the beginning of electronic reporting of compliance reports to begin 180 days after the new template is available in CEDRI if later than 180 days after promulgation of the final rule.

4. What is the rationale for our final approach for the mercury emission limits?

The mercury MACT limit for existing sources (*i.e.,* 0.00026 lbs of mercury per ton of scrap processed, as an input-based limit) was derived using data obtained from source tests performed to fulfill an EPA ICR to determine the mass of mercury emissions from the BOPF Groups [13] at each facility per mass of scrap used in their BOPFs. The format of this standard is based, in part, on the assumption that the mass of mercury emitted from all BOPFs and related units was substantially equivalent to the mass of mercury in the input materials

because mercury is neither created nor destroyed in the BOPF. Furthermore, based on available data and information, we conclude that the primary source of mercury in the input materials are mercury switches. Therefore, we used mercury-to-scrap input ratios from the best performing five facilities out of all 11 integrated iron and steel facilities in the Integrated Iron and Steel Manufacturing Facilities source category to develop an input-based MACT floor limit for mercury. To establish the limit, we calculated a UPL that incorporates the potential variability in future measurements. Because there are fewer than 30 sources in the Integrated Iron and Steel Manufacturing Facilities source category, as described below, we evaluated the best performing five sources in the category to establish a standard for existing sources, pursuant to CAA section 112(d)(3)(B).

The EPA's MACT analyses used the UPL approach to identify the average emission limitation achieved by the best performing five sources. The EPA uses this approach because it incorporates the average performance of the best performing sources as well as the variability of the performance during testing conditions. The UPL represents the value which one can expect the mean of a specified number of future observations (*e.g.,* three-run average) to fall below for the specified level of confidence (99 percent), based upon the results from the same population. In other words, the UPL estimates what the upper bound of future values will be based upon present or past background data. The UPL approach encompasses all the data point-to-data point variability in the collected data, as derived from the dataset to which it is applied. For more details regarding how this limit was derived, see the technical memorandum on the mercury emission limits, referenced above.

The steel industry submitted comments [15] on the proposed rule indicating that the scrap currently used by all facilities is NVMSRP scrap. Furthermore, industry stated [15] that the performance tests conducted to establish the MACT floor limits and, thus, the MACT for mercury in the proposal were based on facilities participating in the NVMSRP. Because of the projected decline in the number of mercury switches in the automobile fleet over time due to the ban of such switches after 2002, and with the continuing implementation of the NVMSRP, it is reasonable for the EPA to conclude that NVMSRP scrap in the future will contain similar mercury, or more likely less mercury, than the scrap used to develop the MACT floor limits. This rule relies, in part, on that conclusion. Therefore, if a facility chooses to comply with the emission limit by certifying that all their scrap is from NVMSRP participants (or a similarly-approved program) or certify that their scrap does not contain mercury switches, it is also reasonable to conclude that such certification achieves the same level of mercury reduction or more reduction as the numeric MACT floor limits.

The mercury emission limit for new sources in the final rule, at 0.000081 lbs of mercury per ton of scrap processed, was derived using ICR test data of the mass of mercury emissions from all BOPF and related units (HMTDS and ladles) per mass of scrap used by the lowest-emitting facility, pursuant to CAA section 112(d)(3). For the final rule, we are correcting the mercury limit from proposal to include two significant figures, from 0.00008 to 0.000081 lbs of mercury per ton of scrap processed, as in the standard for existing sources and as typically done in EPA regulations.

Following the same reasoning discussed above in connection with the existing source standard, we assumed and industry confirmed [15] that the scrap used by the best performing source was either NVMSRP scrap or scrap with higher amounts of mercury per ton of scrap than NVMSRP scrap. Furthermore, industry stated [15] that the performance tests conducted to establish the MACT floor limits and, thus, the MACT for mercury in the proposal were based on facilities participating in the NVMSRP.

As described above, we expect mercury levels in scrap to continue to decline over time due to the switch ban and success of the NVMSRP. Therefore, it is reasonable for the EPA to conclude that scrap subject to the NVMSRP or other approved scrap program in the future will contain similar levels of mercury or, more likely, less mercury than the scrap used to develop the new source limit. Because mercury levels in scrap in the NVMSRP have decreased since 2011 and continue to decrease, it is reasonable to assume that mercury emissions from sources that obtain their metal scrap from participants of that program (or similar program) will be equal to, or more likely lower than, the MACT floor limits for both new and existing sources.

Similar to existing sources above, for new BOPFs and new facilities, we are finalizing provisions in the NESHAP that allow two options to demonstrate compliance with the input-based limit of 0.000081 lbs of mercury per ton of scrap processed, as follows: (1) Conduct performance test twice per permit cycle, *i.e.,* mid-term and at initial or end term for facilities with permits or every 2.5 years for facilities without permits, after the initial performance testing, which is required to be performed within 180 days of July 13, 2020 or within 180 days of initial startup of the new BOPF or new facility, whichever is later, convert the sum of the results to input-based units (*i.e.,* lbs of mercury per ton of scrap input) and document the results in a test report created using the ERT and submitted electronically to the delegated authority through CEDRI (see section IV.E below); or (2) certify in their semiannual compliance reports, with the first semiannual compliance report required after July 13, 2021 or after initial startup of your BOPF Group, whichever is later, that the facility obtains all of their scrap from NVMSRP participants (or similar program as approved by the delegated authority) or certify that their scrap does not contain mercury switches. However, based on consideration of comments, in this final rule the EPA has eliminated the proposed requirement to develop and maintain onsite a scrap plan demonstrating the manner through which facilities are participating in the NVMSRP or similar approved program. Facilities complying via the performance testing option and facilities complying via the NVMSRP or similarly-approved program, or facilities that use scrap that does not contain mercury switches will have 1 year to comply. New facilities must be in compliance with the rule upon startup.

5. What rule changes did we make to the final rule for the mercury emissions standards from proposal?

In response to comments submitted in regard to the proposed mercury emissions standards, we made the following changes for the final rule:

- Added 40 CFR 63.7783(f) to establish the deadline for existing and new affected sources to comply with the emission limitations for mercury;
- Revised proposed 40 CFR 63.7791 title to ''How do I comply with the requirements for the control of mercury?'';
- Revised proposed 40 CFR 63.7791 opening paragraph to start with the letter (a); renamed ''Compliance deadlines''; created new subsections 40 CFR 63.7791(a)(1), 63.7791(a)(2), 63.7791(b)(1) through (3); re-lettered the subsections that followed: 63.7791(c)(1) through (4); 63.7791(d)(1) through (3); and 63.7791(e)(1) through (4); and updated citations throughout the remaining rule text to reflect new organization;

- Revised 40 CFR 63.7791(c)(2) (proposed as (a)(2)) to specify the notification of compliance requirement to identify all scrap providers in semiannual compliance report;
- Revised 40 CFR 63.7791(c)(3) (proposed as (a)(3)) to specify the requirement to identify all scrap providers used by all scrap brokers in semiannual compliance report;
- Removed proposed 40 CFR 63.7791 (a)(4) scrap plan requirement to develop and maintain onsite plan demonstrating the manner through which facilities are participating in the NVMSRP (or other EPA-approved program);
- Revised 40 CFR 63.7791(d) (proposed as (b)(1)) to delete the scrap plan features to obtain information from scrap suppliers or other entities with established knowledge of scrap content that the steel scrap used is not likely to contain motor vehicle scrap and maintain records of this information, and reassigning proposed 40 CFR 63.7791(b)(2) as new, revised 40 CFR 63.7791(d);
- Added 40 CFR 63.7791(d)(1) through (3) regarding compliance by certification of the use of scrap that does not contain mercury switches or is recovered for the specialty alloy content;
- Removed proposed 40 CFR 63.7791 (c)(1)(i) through (iii), limitations on future approved programs;
- Revised 40 CFR 63.7791(e)(2) (proposed as (c)(2)) to specify the notification of compliance requirement to identify all scrap providers in semiannual compliance report;
- Revised 40 CFR 63.7791(e)(3) (proposed as (c)(3)) to specify the requirement to identify all scrap providers used by all scrap brokers in semiannual compliance report;
- Removed proposed 40 CFR 63.7791(c)(4) scrap plan requirement to prevent limitations on future approved plan, and reassigned proposed 40 CFR 63.7791(c)(5) as new, revised 40 CFR 63.7791(e)(4);
- Added 40 CFR 63.7820(e)(1) through (4) to establish the deadlines for conducting initial performance tests to demonstrate compliance with the mercury emission limitations;
- Added and revised 40 CFR 63.7821(e) to require performance tests to be conducted twice per permit cycle for sources with title V operating permits and every 2.5 years for sources without a title V operating permit;
- Added 40 CFR 63.7825 for test methods and other procedures to demonstrate initial compliance with the emission limit for mercury;
- Revised 40 CFR 63.7825(a) to clarify that initial compliance tests must be conducted by the deadlines in 40 CFR 63.7820;
- Revised 40 CFR 63.7825(b)(1)(v) to clarify that the minimum sample volume of 1.7 dry standard cubic meters (dscm) (60 dry standard cubic feet (dscf)) is for EPA Method 29 only and to clarify alternative test methods can be considered on a case-by-case basis per 40 CFR 63.7(f);
- Revised 40 CFR 63.7825(b)(2) to remove requirement of minimum sample volume of 1.7 dscm (60 dscf);
- Added to 40 CFR 63.7825(b)(3), (b)(4)(i), (b)(4)(ii), and (b)(5) to make sampling procedures consistent with 40 CFR 63.7822(f), (g), and (h) in regard to when sampling should start and stop for BOPF operations;
- Revised 40 CFR 63.7825(c) Equation 1 to correctly calculate the mass emissions and revised units to those typically used in the measurement of metals;
- Revised 40 CFR 63.7833(h) to clarify requirements for demonstrating compliance with the mercury emission limits in Table 1 through mercury performance testing;
- Revised 40 CFR 63.7833(i) to clarify requirement for demonstrating compliance with the mercury emission limits in Table 1 by certifying participation in the NVMSRP or another EPA-approved mercury program, or by using scrap that does not contain mercury switches;
- Revised 40 CFR 63.7840(e) requirement for notification of mercury compliance testing for BOPF Group units to include notification of the first mercury compliance test in the BOPF Group along with a schedule of all subsequent tests in the BOPF Group, and that testing is considered complete when the final unit or control device in the BOPF Group is tested;
- Revised 40 CFR 63.7840(f) to include citation to 40 CFR 63.7791(c), (d), and (e) (proposed as (a), (b), and (c));
- Revised 40 CFR 63.7840(f)(1) to remove requirements regarding preparing a plan per proposed 40 CFR 63.7791 (a)(4) or (c)(4);
- Added 40 CFR 63.7841(b)(11) to clarify the reporting statements required per 40 CFR 63.7791(c), (d) or (e);
- Revised 40 CFR 63.7852 to add or change definitions for ''basic oxygen process furnace group,'' ''mercury switch,'' ''motor vehicle,'' ''motor vehicle scrap,'' ''opening,'' ''post-consumer steel scrap,'' ''pre-consumer steel scrap,'' ''steel scrap,'' ''scrap provider;'' ''shredded motor vehicle scrap,'' and ''specialty metal scrap;'' and
- Revised the mercury emission limits in Tables 1, 2, and 3 from 0.00008 to 0.000081 lbs of mercury per ton of scrap processed to include two significant figures.

D. Changes to SSM Provisions

1. What did we propose for SSM?

On August 16, 2019, we proposed to eliminate the SSM exemption in this rule which appears at 40 CFR 63.7810(a). We also proposed to revise the references in Table 4 (the General Provisions table) of 40 CFR part 63, subpart FFFFF, including the references to 40 CFR 63.6(f)(1) and (h)(1), which were vacated by the Court in *Sierra Club* v. *EPA,* 551 F. 3d 1019 (D.C. Cir. 2008). Consistent with *Sierra Club* v. *EPA,* we proposed that the standards in this rule would apply at all times. We also proposed several additional revisions to Table 4 of 40 CFR part 63, subpart FFFFF. For example, we proposed to eliminate the incorporation of the General Provisions' requirement that the source develop an SSM plan. We also proposed to eliminate or revise certain recordkeeping and reporting requirements related to the SSM exemption. We aimed to ensure that the provisions we proposed to eliminate were inappropriate, unnecessary, or redundant in the absence of the SSM exemption.

2. How did the SSM provisions change for the Integrated Iron and Steel Manufacturing Facilities source category?

We did not make any major changes to the proposed SSM provisions for the Integrated Iron and Steel Manufacturing Facilities source category. We made minor edits to the proposed SSM provisions in response to comments that are shown in section IV.D.5, below.

3. What key comments did we receive on SSM, and what are our responses?

This section provides a summary of key comments and responses regarding SSM. A summary of all other public comments on the proposal and the EPA's responses to those comments is available in the *Summary of Public Comments and Responses for the Risk and Technology Review for Integrated Iron and Steel Manufacturing Facilities* (Docket ID No. EPA–HQ–OAR–2002–0083).

Comment: One commenter stated certain aspects of the Proposed Rule, including the proposed elimination of the SSM exemption, are not based on the EPA's authority to conduct RTR rulemakings under CAA sections 112(f)(2) and (d)(6) but, instead, invoke the EPA's discretion to exercise its other statutory authorities in the same rulemaking. The commenter stated the

proposed elimination of the SSM exemption would bring the 40 CFR part 63, subpart FFFFF standards in line with relevant Court decisions by the D.C. Circuit. The commenter stated in certain cases, the EPA's proposed language would create redundancies and pose problems for compliance that should be addressed.

The commenter stated the EPA should not finalize the additional recordkeeping and reporting requirements included in the proposal under 40 CFR 63.7835, 63.7841, and 63.7842 that would add regulatory burden without adding apparent value.

The commenter stated the preamble explains that the requirement would ''ensure that there is adequate information to determine compliance, to allow the EPA to determine the severity of the failure to meet an applicable standard, and to provide data that may document how the source met the general duty to minimize emissions during a failure to meet an applicable standard.'' The commenter stated the preamble provides no information or examples of how or why the absence of this information has created any issues for the EPA or those subject to the regulation. As a practical matter, the commenter stated, it may not be possible to estimate the quantity of ''each regulated pollutant'' emitted over any emission limit.

The commenter stated the NESHAP provides for work practices and involves regulation of HAP emissions with the use of surrogates. Given that SSM or deviation reports may be due to a permitting authority in relatively short order, the commenter stated it could be very difficult to meet this requirement even where an estimate could be generated. The commenter stated minimizing regulatory burden and avoiding information ''creep'' that tends to institutionalize higher costs are important concerns for regulated entities; it is unclear why this information needs to be supplied on an ongoing basis, rather than providing it in response to an expected, infrequent request from a regulatory authority. Thus, the commenter stated the EPA should remove the proposed requirements to provide estimates quantifying emission limit exceedances or methods used to estimate those emissions in the proposed recordkeeping and reporting requirements in 40 CFR 63.7835, 63.7841, and 63.7842.

Response: The EPA disagrees that the additional reporting and recordkeeping requirements add burden without value. As stated in the proposed rule, recordkeeping and reporting of the information specified in 40 CFR 63.7835, 63.7841, and 63.7842 ensure that there is adequate information to determine compliance, allow the EPA to determine the severity of the failure to meet an applicable standard, and to provide data that may document how the source met the general duty to minimize emissions during a failure to meet an applicable standard.

The procedure for estimating the quantity of pollutant emitted during the deviation is left open because we recognize that precise or direct measurement is not likely unless the failure to meet the applicable standard happens to occur during a performance test. The estimate of emissions is not for each HAP emitted, but for the regulated pollutant, which in the case of a surrogate such as PM, is the surrogate pollutant (PM) itself. A facility has the flexibility to employ any reasonable means to estimate the emissions from a deviation (*e.g.,* mass balance calculations, measurements when available, or engineering judgment based on known process parameters or the effects of a work practice). The estimation of the quantity of pollutant emitted, as the product of the mass emission rate (determined from emissions concentration and gas flow) and the duration of the deviation, are direct indicators of the severity of an issue. Therefore, we maintain that it is appropriate and feasible for facilities to estimate the quantity of each regulated pollutant over the emission limit.

The SSM reports are no longer required by this rule with the removal of the SSM provisions, and the deviation reports are part of the semiannual compliance report, occurring on a known schedule, and have a fixed reporting deadline of 31 days after the end of the reporting period. This deadline provides sufficient time for reporting a deviation that may have occurred on the final day of the reporting period. The EPA is retaining the additional recordkeeping and reporting elements in the final rule, with the exception of the number of deviations, which is unnecessary in light of all deviations being reported.

We agree with the commenter that one of the proposed new SSM requirements, the inclusion of compliance procedures and emissions calculations in the Operations and Maintenance Plan, was not consistent with required content or use of an Operation and Maintenance Plan. To address this inconsistency, we removed certain SSM provisions, described below in section IV.D.5. In addition, see other related rule changes included under electronic reporting, in section IV.E.5 of this preamble.

4. What is the rationale for our final approach for the SSM provisions?

In finalizing the SSM standards in this rule, the EPA has taken into account startup and shutdown periods and, for the reasons explained below, has not proposed alternate standards for those periods. The integrated iron and steel industry has not identified (and there are no data indicating) any specific problems with removing the SSM exemption. We solicited comment on whether any situations exist where separate standards, such as work practices, would be more appropriate during periods of startup and shutdown rather than the current standard. We did not receive any comments on this topic.

Periods of startup, normal operations, and shutdown are all predictable and routine aspects of a source's operations. Malfunctions, in contrast, are neither predictable nor routine. Instead they are, by definition, ''sudden, infrequent, and not reasonably preventable failures of emissions control, process, or monitoring equipment.'' (40 CFR 63.2) (definition of malfunction).

The EPA interprets CAA section 112 as not requiring emissions that occur during periods of malfunction to be factored into development of CAA section 112 standards and this reading has been upheld as reasonable by the Court in *U.S. Sugar Corp.* v. *EPA,* 830 F.3d 579, 606–610 (2016). Under CAA section 112, emissions standards for new sources must be no less stringent than the level ''achieved'' by the best controlled similar source and for existing sources generally must be no less stringent than the average emission limitation ''achieved'' by the best performing 12 percent of sources in the category. There is nothing in CAA section 112 that directs the Agency to consider malfunctions in determining the level ''achieved'' by the best performing sources when setting emission standards. As the Court has recognized, the phrase ''average emission limitation achieved by the best performing 12 percent of sources'' says nothing about how the performance of the best units is to be calculated. *Nat'l Ass'n of Clean Water Agencies* v. *EPA,* 734 F.3d 1115, 1141 (D.C. Cir. 2013). While the EPA accounts for variability in setting emissions standards, nothing in CAA section 112 requires the Agency to consider malfunctions as part of that analysis. The EPA is not required to treat a malfunction in the same manner as the type of variation in performance that occurs during routine operations of a source. A malfunction is a failure of

the source to perform in a ''normal or usual manner'' and no statutory language compels the EPA to consider such events in setting CAA section 112 standards.

As the Court recognized in *U.S. Sugar Corp.,* accounting for malfunctions in setting standards would be difficult, if not impossible, given the myriad different types of malfunctions that can occur across all sources in the category and given the difficulties associated with predicting or accounting for the frequency, degree, and duration of various malfunctions that might occur. *Id.* at 608 (''the EPA would have to conceive of a standard that could apply equally to the wide range of possible boiler malfunctions, ranging from an explosion to minor mechanical defects. Any possible standard is likely to be hopelessly generic to govern such a wide array of circumstances.''). As such, the performance of units that are malfunctioning is not ''reasonably'' foreseeable. See, *e.g., Sierra Club* v. *EPA,* 167 F.3d 658, 662 (D.C. Cir. 1999) (''The EPA typically has wide latitude in determining the extent of data-gathering necessary to solve a problem. We generally defer to an Agency's decision to proceed on the basis of imperfect scientific information, rather than to 'invest the resources to conduct the perfect study.'''), See also, *Weyerhaeuser* v. *Costle,* 590 F.2d 1011, 1058 (D.C. Cir. 1978) (''In the nature of things, no general limit, individual permit, or even any upset provision can anticipate all upset situations. After a certain point, the transgression of regulatory limits caused by 'uncontrollable acts of third parties', such as strikes, sabotage, operator intoxication or insanity, and a variety of other eventualities, must be a matter for the administrative exercise of case-by-case enforcement discretion, not for specification in advance by regulation.''). In addition, emissions during a malfunction event can be significantly higher than emissions at any other time of source operation. For example, if an air pollution control device with 99-percent removal goes off-line as a result of a malfunction (as might happen if, for example, the bags in a baghouse catch fire) and the emission unit is a steady state type unit that would take days to shut down, the source would go from 99-percent control to zero control until the control device was repaired. The source's emissions during the malfunction would be 100 times higher than during normal operations. As such, the emissions over a 4-day malfunction period would exceed the annual emissions of the source during normal operations. As this example illustrates, accounting for malfunctions could lead to standards that are not reflective of (and significantly less stringent than) levels that are achieved by a well-performing non-malfunctioning source. It is reasonable to interpret CAA section 112 to avoid such a result. The EPA's approach to malfunctions is consistent with CAA section 112 and is a reasonable interpretation of the statute.

Although no statutory language compels the EPA to set standards for malfunctions, the EPA has the discretion to do so where feasible. For example, when the EPA conducted the Petroleum Refinery Sector RTR, the EPA established a work practice standard for unique types of malfunctions that result in releases from pressure relief devices or emergency flaring events because the EPA had information to determine that such work practices reflected the level of control that applies to the best performers. 80 FR 75178, 75211–14 (December. 1, 2015). The EPA will consider whether circumstances warrant setting standards for a particular type of malfunction and, if so, whether the EPA has sufficient information to identify the relevant best performing sources and establish a standard for such malfunctions. In the event that a source fails to comply with the applicable CAA section 112(d) standards as a result of a malfunction event, the EPA would determine an appropriate response based on, among other things, the good faith efforts of the source to minimize emissions during malfunction periods, including preventative and corrective actions, as well as root cause analyses to ascertain and rectify excess emissions. The EPA would also consider whether the source's failure to comply with the CAA section 112(d) standard was, in fact, ''sudden, infrequent, not reasonably preventable,'' and was not caused (in any way) by poor maintenance or careless operation. 40 CFR 63.2 (definition of malfunction).

If the EPA determines in a particular case that an enforcement action against a source for violation of an emission standard is warranted, the source can raise any and all defenses in that enforcement action and the Federal district court will determine what, if any, relief is appropriate. The same is true for citizen enforcement actions. Similarly, the presiding officer in an administrative proceeding can consider any defense raised and determine whether administrative penalties are appropriate.

In summary, the EPA interpretation of the CAA and, in particular, CAA section 112 is reasonable and encourages practices that will avoid malfunctions. Administrative and judicial procedures for addressing exceedances of the standards fully recognize that violations may occur despite good faith efforts to comply and can accommodate those situations. *U.S. Sugar Corp.* v. *EPA,* 830 F.3d 579, 606–610 (2016).

We are requiring compliance with the SSM changes for existing sources 180 days from publication of the final rule. This period of time will allow facilities to read and understand the amended rule requirements, to evaluate their operations to ensure that they can meet the standards during periods of startup and shutdown as defined in the rule and make any necessary adjustments, and to convert reporting mechanisms to install necessary hardware and software. The EPA considers a period of 180 days to be the most expeditious compliance period practicable for these source categories and, thus, all affected sources must comply with the revisions to the SSM provisions and electronic reporting requirements no later than 180 days from the effective date of the final rule, or upon startup, whichever is later.

5. What rule changes did we make for the final rule for the SSM Provisions?

In response to comments submitted in regard to the SSM provisions, we made the following changes for the final rule:

- Removed proposed 40 CFR 63.7800(b)(8), ''The compliance procedures within the operation and maintenance plan shall not include any periods of startup or shutdown in emissions calculations.''

E. Electronic Reporting

1. What did we propose for electronic reporting for the Integrated Iron and Steel Manufacturing Facilities source category?

On August 16, 2019, the EPA proposed the requirement that owners and operators of integrated iron and steel facilities submit the required electronic copies of summaries of performance test and performance evaluation results and semiannual reports through the EPA's CDX using the CEDRI. A description of the electronic data submission process is provided in the memorandum titled *Electronic Reporting Requirements for New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Rules* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0909). The proposed rule required performance test results to be collected using test methods that are supported by the EPA's ERT, as listed on the ERT website

at the time of the test, be submitted in the format generated through the use of the ERT, and that other performance test results be submitted in PDF using the attachment module of the ERT. Similarly, performance evaluation results of continuous monitoring systems measuring relative accuracy test audit pollutants that are supported by the ERT at the time of the test would be submitted in the format generated through the use of the ERT and other performance evaluation results be submitted in PDF using the attachment module of the ERT.

For semiannual compliance reports, the proposed rule required owners and operators to use the appropriate spreadsheet template to submit information to CEDRI. A draft template for these reports was included in the docket for this rulemaking, and the final template will be available on the CEDRI homepage (*https://www.epa.gov/electronic-reporting-air-emissions/cedri*). Additionally, the EPA identified two broad circumstances in which electronic reporting extensions may be provided. In both circumstances, the decision to accept the claim of needing additional time to report would be within the discretion of the Administrator, and reporting should occur as soon as possible. The EPA is providing these potential extensions to protect owners and operators from noncompliance in cases where they cannot successfully submit a report by the reporting deadline for reasons outside of their control. The situation where an extension may be warranted due to outages of the EPA's CDX or CEDRI that preclude an owner or operator from accessing the system and submitting required reports is addressed in 40 CFR 63.7841(e). The situation where an extension may be warranted due to a force majeure event, which is defined as an event that would be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents an owner or operator from complying with the requirement to submit a report electronically as required by this rule is addressed in 40 CFR 63.7841(f). Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazards beyond the control of the facility.

2. How did electronic reporting change for the Integrated Iron and Steel Manufacturing Facilities source category?

There were no major changes to the final rule for electronic reporting for the Integrated Iron and Steel Manufacturing Facilities source category. Minor rule edits were made to the proposed requirements in response to comments and are shown in section IV.E.5 below.

3. What key comments did we receive on electronic reporting, and what are our responses?

This section provides a summary of key comments and responses regarding electronic reporting. A summary of all other public comments on the proposal and the EPA's responses to those comments is available in the Summary of Public Comments and Responses for the Risk and Technology Review for Integrated Iron and Steel Manufacturing Facilities (Docket ID No. EPA–HQ–OAR–2002–0083).

Comment: A commenter requested minor technical corrections to the compliance reporting template.

Response: The EPA acknowledges the thorough review of the template by the commenter. Updates to the Integrated Iron and Steel Manufacturing Facilities source category compliance template have been made accordingly to better reflect the provisions of the final rule and address industry comments. These corrections are shown in detail in the response to comment document with responses to specific elements of the comments.

4. What is the rationale for our final approach for electronic reporting?

The electronic submittal of the reports addressed in this rulemaking will increase the usefulness of the data contained in those reports, is in keeping with current trends in data availability and transparency, will further assist in the protection of public health and the environment, will improve compliance by facilitating the ability of regulated facilities to demonstrate compliance with requirements, and by facilitating the ability of delegated state, local, tribal, and territorial air agencies and the EPA to assess and determine compliance, and will ultimately reduce burden on regulated facilities, delegated air agencies, and the EPA. Electronic reporting also eliminates paper-based, manual processes, thereby saving time and resources, simplifying data entry, eliminating redundancies, minimizing data reporting errors, and providing data quickly and accurately to the affected facilities, air agencies, the EPA, and the public. Moreover, electronic reporting is consistent with the EPA's plan to implement Executive Order 13563 and is in keeping with the EPA's Agency-wide policy developed in response to the White House's Digital Government Strategy. For more information on the benefits of electronic reporting, see the memorandum titled *Electronic Reporting Requirements for New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Rules* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0909).

5. What rule changes did we make for the final rule for electronic reporting?

In response to comments submitted in regard to electronic reporting, we made the following changes for the final rule:

- Revised 40 CFR 63.7835 to remove requirement to record number of failures to eliminate redundancy with the spreadsheet template that requires the inclusion of every failure;
- Revised 40 CFR 63.7841(b)(4) to remove requirement to report number of failures to eliminate redundancy with the spreadsheet template that requires the inclusion of every failure;
- Revised 40 CFR 63.7841(b)(7) to include citation to newly added 40 CFR 63.7841(b)(13);
- Revised 40 CFR 63.7841(b)(7)(i) to remove the requirement to report the ''number'' of deviations;
- Revised 40 CFR 63.7841(b)(8) to include citation to newly added 40 CFR 63.7841(b)(13);
- Revised 40 CFR 63.7841(b)(8)(ii) to add ''and duration'', as in (iii);
- Revised 40 CFR 63.7841(b)(9) to include citation to newly added 40 CFR 63.7841(b)(13);
- Added 40 CFR 63.7841(b)(13) to provide 180 days after publication in the **Federal Register** for all sources that failed to meet an applicable standard to include in the compliance report for each failure the start date, start time and duration of each failure and a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions;
- Revised 40 CFR 63.7841(c) to specify the beginning of electronic reporting to begin either 180 days after promulgation of the final rule or 180 days after the template is available in CEDRI, whichever is later; and
- Removed proposed 40 CFR 63.7843(d) to eliminate redundancy with existing language in 40 CFR 63.10(b)(1).

F. Other Issues Regarding UFIP Sources of HAP Emissions

In this section we address other issues related to UFIP emissions sources that are not addressed above in section IV.A of this preamble.

1. How were other relevant issues regarding UFIP sources of HAP emissions addressed in the proposed rule for the Integrated Iron and Steel Manufacturing Facilities source category?

As described in Section IV.A of this preamble, in the August 16, 2019, proposal, we discussed seven UFIP HAP emission sources (84 FR at 42708) and requested comments on all aspects of the UFIP analyses. We did not propose any standards for these sources.

The UFIP emission sources described in the proposal included BF bleeder valve unplanned openings (also known as slips), BF bleeder valve planned openings, BF bell leaks, BF casthouse fugitives, BF iron beaching, BF slag handling and storage operations, and BOPF shop fugitives. These UFIP emission sources were identified by observation of visible plumes of fugitives and intermittent emissions being emitted from the seven UFIP sources during inspections by EPA Regional staff [17] and discussed in the technical memorandum titled *Development of Emissions Estimates for Fugitive or Intermittent HAP Emission Sources for an Example Integrated Iron and Steel Facility for Input to the RTR Risk Assessment* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0956). The NESHAP already contains opacity limits for two of these sources—BF casthouse fugitives and BOPF shop fugitives.

The emissions from these UFIP sources were included in the risk assessment in an example facility analysis to assess the potential risk contributed by UFIP and the effect that omission of these sources has on the estimated risks for the source category as a whole. (See section IV.A.1 and Table 2 of this preamble for the risk estimated for the source category).

As explained in section IV.A in regard to the UFIP and potential work practices, and consistent with our explanation in the proposed rule (see 84 FR 42704) that was based on consideration of all our analyses and related information including the risk analysis results, costs, and uncertainties, we determined in the proposal that the current NESHAP provides an ample margin of safety to protect public health and that no additional standards are required under CAA section 112(f). This decision was based largely on the substantial uncertainties in the estimates of the baseline HAP emissions from UFIP emission sources, costs of the work practices, HAP risk reductions that would be achieved by the work practices, and uncertainties raised by industry in their comments regarding potential effects of the work practices on the facilities' operations, safety, and economics.

Furthermore, as described in section IV.B, for most of the same reasons discussed above in regard to ample margin of safety analysis for UFIP emissions, no new standards were proposed for the two regulated UFIP sources under the technology review pursuant to CAA section 112(d)(6).

2. How did the final rule change based on the comments received about UFIP sources?

We are not promulgating any new standards for UFIP emissions sources under the risk or technology reviews, as described in sections IV.A and IV.B. We also are not taking final action to establish additional emission standards for any of the UFIP emissions sources under any other CAA authority at this time. Although we received many comments on UFIP sources, both supporting and opposing additional standards, we did not receive any additional data on UFIP emissions or on the effectiveness of the work practices. We did receive some limited additional information on costs that suggested we may have underestimated the costs for some of the work practices discussed in the proposal, but no citations or documentation were provided to validate the new cost information. We also received comments that suggested we may have overestimated UFIP emissions and control-effectiveness of the work practices, but, again, without any citations of documentation for other emission estimates or control efficiencies of the work practices. For these reasons, and because we do not have adequate information to resolve the substantial uncertainty that remains for the UFIP emissions estimates, control efficiency of the work practices, costs, and other factors, we are not promulgating any new requirements for UFIP sources in this action.

3. What key comments did we receive about UFIP sources that were not already addressed under the risk review section of this preamble and what are our responses?

This section provides a summary of some of the key comments and responses regarding UFIP sources not addressed above in section IV.A.3. A summary of all other public comments on the proposal in regard to UFIP and the EPA's responses to those comments are available in the document *Summary of Public Comments and Responses for the Risk and Technology Review for Integrated Iron and Steel Manufacturing Facilities,* located in the docket for this rule (Docket ID No. EPA–HQ–OAR–2002–0083).

Comment: One commenter recognized that the EPA identified the work practice information as uncertain, and in fact, too uncertain to be relied upon in this rulemaking. The commenter appreciated the EPA's recognition of these issues and supported the Agency's conclusions. The commenter is pleased that the EPA is not proposing to rely on unsupported conclusions as part of a final rule.

Another commenter stated the EPA created the ''UFIP'' designation to refer to emissions that facilities generally try to prevent from occurring in the first place. In other words, facilities are already naturally incentivized to prevent many UFIP emissions as they reflect nonoptimal operation. Thus, the commenter says, facilities operate to minimize these emissions without additional regulatory requirements; imposing a regulatory overlay would be problematic from an operational perspective and would not lead to reduced emissions. The commenter stated regulating these sources would dictate *how* facilities operate—effectively freezing approaches in time when they should be evolving as part of the continuous improvement process. Second, the commenter stated regulation would impose a one-size-fits-all approach for sources that make products in different ways and have different configurations. Third, the commenter stated regulation of UFIP would create a micro-managerial structure that would be costly—even if not from a capital investment perspective—because of the operational nature of many of the approaches the EPA considered. This micro-managerial structure, the commenter stated, would lead to only ''paperwork'' deviations, by imposing onerous recordkeeping requirements, which will mean that operators' and inspectors' attention will be taken away from critical aspects of plant operations, even when a plant is not causing increased emissions. Thus, the commenter concluded the emission reduction practices presented by the EPA for UFIP sources provide no risk reduction benefit despite the cost and effort they entail. Finally, the commenter stated that, given the intense competition in this industry, which stretches well beyond U.S. borders, these requirements would put U.S. facilities at a cost disadvantage—and

[17] See the report, *EPA Region V Enforcement Summary—UFIP Opacity from Integrated Iron and Steel Facility Violation Reports—2007 through 2014.* (Docket ID Item No. EPA–HQ–OAR–2002–0083–0997.)

would do so without generating commensurate emissions and risk reductions.

The commenter stated the EPA appropriately acknowledges that there are significant uncertainties in costs, effectiveness, and feasibility of the work practice options on which it seeks comment. The commenter stated the estimates in the proposal drastically understate the costs and likewise overstate any emission reductions that would be achieved, since companies already work to prevent these emissions and are incentivized to do so to maintain their operations in the most efficient and safe manner. Although the EPA estimates the specific costs for each of the work practices discussed in the proposal preamble, the commenter stated the EPA fails to attribute potential HAP emissions reductions individually, and, thus, does not appropriately estimate cost effectiveness. The commenter stated that, even without these additional considerations, the EPA is right not to require them, and that with an accurate view of the costs and benefits of this regulatory overlay, the EPA decision is unquestionably correct.

The commenter stated given the risk modeling, the work practice options discussed are not necessary to provide an ample margin of safety. The commenter stated the various compliance and enforcement documents related to the so-called UFIP sources in the rulemaking docket are not to the contrary. Moreover, the commenter stated it would be unreasonable to require the potential work practices as doing so would codify practices that already occur voluntarily or pursuant to current federal or state requirements and drive up costs of compliance without resulting in any risk reduction. The commenter stated adding a substantial administrative burden to an important economic sector, particularly without clear benefit, is contrary to Congress' purpose under the CAA and with reasoned decision-making. The commenter stated the focus should be on maximizing environmentally beneficial results, not paperwork. The commenter stated codifying work practices that already take place on a case-by-case basis would result in a misdirection of resources not only from the steel industry to comply with added monitoring, recordkeeping, and reporting requirements, but also from the EPA by having to assure compliance with details that ultimately have little bearing on air quality and public health.

The commenter stated many of the work practices are practically infeasible as applied to particular plants or, generally, not cost effective and, in some instances, could even be contrary to practices established to assure facility safety, such as what would result from reducing natural ventilation and other effects of closing the openings and air holes in the BF casthouse and BOP shop. These effects include cost to the facility to otherwise increase breathing space ventilation for workers; the wear and tear on control equipment due to higher-than-design air flowrates; the cost to document opening and closing of doors, windows, *etc.,* to accommodate large equipment and vehicle traffic into buildings; difficulty in accessing some openings that may be hundreds of feet off the ground, requiring significant precautions due to the height alone; and prevent the opening of pressure relief panels, which would badly damage building exteriors during high-pressure events, etc. Therefore, the commenter stated the EPA should, thus, finalize its proposal not to amend 40 CFR part 63, subpart FFFFF to require additional work practices for UFIP sources.

Response: The EPA acknowledges the support by the commenter for the proposed conclusions, which are being finalized in this document. The EPA also acknowledges, as the commenter points out, the complexities in controlling emissions from UFIP sources. The EPA also is pleased to know that the industry is already attempting to minimize these emissions.

We do not agree with the commenter that many of the work practices are ''practically infeasible'' at all plants, but we cannot adequately assess the effectiveness or impacts of the work practices without more specific descriptions of actual facility experience with, or analyses of, the impacts of the work practices, including potential changes in air flow into and out of the buildings beyond the extreme consequences hypothesized by the commenter, which mostly only concern BF casthouse and BOP shop operations. With the understanding that the work practices could be more difficult to implement at some facilities than others, we sought specific comments on the general feasibility of the work practices, with the hope that commenters could have described ways to improve or modify the work practice so as to be amenable to their use at all facilities. Unfortunately, we received very little information through the public comments to improve our understanding of which work practices would be generally feasible and appropriate across the industry.

In regard to calculating cost effectiveness, since the HAP being evaluated are all various PM HAP metals, we conclude that it would neither be appropriate nor logical to apportion control costs of a work practice or control device to each metal HAP in this case, mainly because the intent of the control methods we analyzed is to minimize emissions of the mix of PM HAP metals. Nevertheless, as described elsewhere in this preamble, the EPA is not promulgating any new or revised standards for UFIP sources in this action.

Comment: One commenter stated, based on the record, it is unclear how or why the EPA ended its staff's consideration of the work practice standards for the proposal, or on what basis it did so. In addition, the commenter noted that the EPA contacted Michigan and Indiana and provided ''draft work practice standards,'' as shown by email communications with these states in 2018. The commenter continued that there was some material in the bodies of the emails that the EPA has disclosed showing these would likely have been important and achieved significant emission reductions. It is clear to the commenter that the EPA staff long planned to propose significant emission reduction requirements, based on the evidence they have in the record, and that the state air quality inspectors and regulators also supported these requirements.

The commenter stated the EPA has failed to show how it can lawfully or rationally not follow what its own regulatory staff initially provided to stakeholders, what its enforcement staff apparently support (EPA Region V), and what state regulators in Michigan and Indiana have also supported as needed to reduce UFIP emissions and protect public health. The commenter stated the EPA's ''about-face'' from its staff's and state air regulators' recommendations, and its ultimate refusal to follow the evidence in the record illustrate that this proposal, if finalized, would be unlawful and arbitrary. The commenter stated it appears that the EPA Administrator has not acted with the requisite open mind to consider the relevant statutory requirements, record, or staff recommendations which would have led to a stronger proposal and a stronger final rule. The commenter stated the EPA will violate the CAA and engage in the ultimate in capricious decision making if it attempts to finalize this proposed rule which lacks the necessary statutory requirements as well as the required rational connection to the facts shown in the record.

Response: While the EPA agrees with the commenter that the UFIP HAP emissions issue and related information

available to the EPA were worthy of bringing forth to the public and asking for comment in the proposal, no additional technical information was received to improve our understanding or quantification of the UFIP emissions or our understanding of the effectiveness of using work practices to control UFIP emissions. We received some new cost information that suggests that we underestimated the costs of the work practices, but that new information was not documented or cited. We also received comments that we overestimated UFIP emissions and overestimated the effectiveness of the work practices, which combined with information suggesting we underestimated costs, if accurate, would make control of UFIP emissions substantially less cost-effective than the values we presented in the proposal preamble. In addition, although environmental groups submitted comments in general support of UFIP regulations, no comments were received from citizens or community groups living in the areas of the integrated iron and steel facilities supporting the UFIP emission regulations, or on the impact to local residents of not requiring work practices to reduce emissions from these sources, or any other claims as such. Therefore, because of the uncertainty in the UFIP emission estimates, cost estimates, and control efficiencies of the work practices; and the lack of complete information about the impact of UFIP emissions at all facilities (as described above in previous comments), the EPA is not promulgating any work practice standards for UFIP emissions at this time. See above section IV.A for a more detailed discussion of the estimated risk from UFIP emissions.

4. What is our rationale for our final approach for the UFIP sources?

The decision not to promulgate any new standards for UFIP sources at this time is based largely on the uncertainties in the UFIP assessment in terms of the emission estimates, costs of the work practices, how much emission reduction the work practices could achieve, and the potential negative effects of the work practices on the facilities' operations, safety, and economics. For five of the UFIP sources not currently regulated,[18] we would need to promulgate standards for these sources pursuant to CAA section 112(d)(2) and (3), which would necessitate an analysis of the top performers under CAA sections 112(d)(2) and (3). The lack of quantitative emissions data (and the time and techniques to obtain such data) for UFIP sources and/or the lack of other relevant information (such as reliable information regarding the effectiveness of each of the work practices), which is needed to establish the top performing facilities and the MACT floor level of control, prevents us from establishing appropriate emissions standards for the five UFIP sources at this time.

With regard to the other two UFIP sources currently regulated (*i.e.,* BF casthouse and BOPF shop), since we have concluded that risks due to emissions from the source category are acceptable, we would need to promulgate standards for these two UFIP sources pursuant to CAA section 112(d)(6) or under the ample margin of safety analysis phase of our section 112(f) review, both of which include considerations of costs and other factors. As explained previously in this preamble, the EPA has decided to not promulgate any of the work practices for these two UFIP sources at this time mainly because of the substantial uncertainties in the UFIP assessment in terms of baseline emissions, costs of the work practices, how much emission reduction the work practices could achieve; and, the potential negative effects of the work practices on the facilities' operations, safety, and economics.

[18] The five currently unregulated UFIP sources are BF bleeder valve unplanned openings (also known as slips), BF bleeder valve planned openings, BF bell leaks, BF iron beaching, and BF slag handling and storage operations.

G. Other Items

Other items in this final rule are IBR, compliance dates, and other rule changes not discussed elsewhere in this preamble. These issues are discussed below.

1. IBR Under 1 CFR Part 51

On August 16, 2019, the EPA proposed regulatory text that includes IBR. In accordance with requirements of 1 CFR 51.5, the EPA proposed to incorporate by reference the following documents and to amend 40 CFR 63.14 to identify the provisions for which these documents are IBR approved for this rule:

- ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], issued August 31, 1981, IBR approved for 40 CFR 63.7822(b), 63.7824(e), and 63.7825(b). This method determines quantitatively the gaseous constituents of exhausts resulting from stationary combustion sources. The gases addressed in the method are oxygen, carbon dioxide, carbon monoxide, nitrogen, sulfur dioxide, sulfur trioxide, nitric oxide, nitrogen dioxide, hydrogen sulfide, and hydrocarbons. The method is approved for this rule with caveats described in section VI.J of this preamble.
- EPA–454/R–98–015, Office of Air Quality Planning and Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance, September 1997, IBR approved for 40 CFR 63.7831(f). This document provides guidance on the use of triboelectric monitors as fabric filter bag leak detectors. The document includes fabric filter and monitoring system descriptions; guidance on monitor selection, installation, setup, adjustment, and operation; and quality assurance procedures.

For the final rule, in response to comments, we have added the following voluntary consensus standard (VCS) approved as an alternate method to measure opacity under 40 CFR part 63, subpart FFFFF, with caveats described in section VI.J of this preamble; we will incorporate the method by reference in the amendments to 40 CFR 63.14:

- ASTM D7520–16, Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere, approved April 1, 2016, IBR approved for 40 CFR 63.7823(c), 63.7823(d), 63.7823(e), and 63.7833(g). This method describes procedures to determine the opacity of a plume, using digital imagery and associated hardware and software, where opacity is caused by PM emitted from a stationary point source in the outdoor ambient environment. The opacity of emissions is determined by the application of a DCOT that consists of a digital still camera, analysis software, and the output function's content to obtain and interpret digital images to determine and report plume opacity. The method is approved for this rule with caveats described in section VI.J of this preamble.

The ANSI/ASME document is available from the American Society of Mechanical Engineers (ASME) at *http://www.asme.org;* by mail at Three Park Avenue, New York, NY 10016–5990; or by telephone at (800) 843–2763. The ASTM D7520–16 document is available from the American Society for Testing and Materials (ASTM) at *https://www.astm.org* or 1100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, telephone number: (610) 832–9500, fax number: (610) 832–9555, or email: *service@astm.org.* The EPA has made, and will continue to make, the EPA document generally available electronically through *https://www.regulations.gov/* and at the EPA Docket Center (see the **ADDRESSES**

section of this preamble for more information).

2. Compliance Dates

On August 16, 2019, we proposed to provide existing sources with 180 days after the effective date of the final rule to comply with the changes to the SSM provisions in 40 CFR part 63, subpart FFFFF and all other new or revised requirements in this rule except for the mercury emission limits, for which we proposed to require compliance within 1 year. We proposed that new sources, defined as BOPFs, BOPF shops, or facilities constructed or reconstructed after August 16, 2019, would be required to comply with all requirements on the effective date of the final rule, or upon startup, whichever is later.

In the final rule, for the SSM provisions and all other new or revised requirements in this rule except for those related to the mercury standards, we are finalizing the compliance times as proposed (180 days) for existing sources, and new sources will need to comply upon the effective date of the final rule or upon startup, whichever is later. Regarding the mercury standards and associated requirements, we are providing for existing sources the same deadlines as proposed (*i.e.,* 1 year to comply). An additional year may be provided for compliance via the states as per 40 CFR part 63 General Provisions (40 CFR 63.6(i)) for facilities needing to make process changes or install control equipment. As proposed and consistent with the CAA, new sources must comply upon the effective date of the final rule or upon startup, whichever is later.

For electronic reporting, the final rule provides that facilities must comply with the electronic reporting requirements for semiannual compliance reports either 180 days after date of publication in the **Federal Register** of the final rule or 180 days after the electronic reporting template for Integrated Iron and Steel Manufacturing Facilities is available in CEDRI, whichever is later, to allow for EPA revisions to the template in response to comments.

3. What other rule changes did we make in the final rule?

In the final rule, we made the following technical and editorial corrections and clarifications:

- Revised 40 CFR 63.7810(a) to provide sources that commenced construction or reconstruction on or before August 16, 2019, 180 days after publication in the **Federal Register** for all sources to comply with emission limitations during periods of SSM;
- Revised 40 CFR 63.7810(c) to remove the SSM plan requirement 180 days after publication in the **Federal Register** for sources that commenced construction or reconstruction on or before August 16, 2019 and to remove the SSM plan requirement upon publication in the **Federal Register** for all sources that commenced construction or reconstruction after August 16, 2019;
- Revised 40 CFR 63.7810(d) to provide sources that commenced construction or reconstruction on or before August 16, 2019 with 180 days to comply with the general duty requirement in 40 CFR 63.7810(d). Prior to the expiration of the 180 days, such sources must comply with the provisions in 40 CFR 63.6(e)(1)(i);
- Revised 40 CFR 63.7822(a) to provide 180 days after publication in the **Federal Register** for all sources that commenced construction or reconstruction on or before August 16, 2019 comply with the revised requirement to conduct each performance test under conditions representative of normal operations, excluding periods of startup and shutdown and malfunction. Prior to the expiration of 180 days, such sources must comply with the pre-existing requirement to conduct performance tests based on representative performance;
- Revised 40 CFR 63.7822 and 63.7823 to specify the conditions for conducting performance tests;
- Revised 40 CFR 63.7822(b)(1)(iii), 63.7824(e)(1)(iii), and 63.7825(b)(1)(iii) to IBR ANSI/ASME PTC 19.10–1981;
- Revised 40 CFR 63.7822, 63.7823, 63.7824, and 63.7833 to clarify the location in 40 CFR part 60 of applicable EPA test methods;
- Revised 40 CFR 63.7823(a) to specify initial compliance with the opacity limits should be based on representative performance which excludes periods of startup and shutdown and malfunction;
- Added to 40 CFR 63.7823(c)(1), (d)(1)(i), (d)(2)(i), (e)(1) and 63.7833(g)(3) to IBR the ASTM D7520–16 method as an alternative VCS to EPA Method 9 opacity observations; added ''For Method 9'' to 40 CFR 63.7823(e)(3) to clarify that using an observer is only for EPA Method 9;
- Revised 40 CFR 63.7831(a)(4) to clarify that sources that commenced construction or reconstruction on or before August 16, 2019, and, therefore, are not required to comply during periods of SSM until after 180 days after publication in the **Federal Register**, are subject during that 180 day period to the requirements in 40 CFR 63.8(c)(1)(ii), (c)(3), (c)(4)(ii), (c)(7), and (c)(8);
- Revised 40 CFR 63.7831(a)(5) to clarify that sources that commenced construction or reconstruction on or before August 16, 2019, and, therefore, are not required to comply during periods of SSM until after 180 days after publication in the **Federal Register**, are subject during that 180 day period to the requirements related to SSM plans referenced in 40 CFR 63.8(d)(3);
- Revised 40 CFR 63.7831(a)(6) to provide sources constructed or reconstructed on or before August 16, 2019, and, therefore, are not required to comply during periods of SSM until after 180 days after publication in the **Federal Register**, are subject during that 180 day period to the requirements in § 63.10(c)(1) through (c)(14), and (e)(1) and (e)(2)(i);
- Revised 40 CFR 63.7831(f)(4) to IBR for EPA–454/R–98–015;
- Added 40 CFR 63.7835(d) to specify that for sources that commenced construction or reconstruction after August 16, 2019 the exemptions for deviations that occur during a period of startup, shutdown, or malfunction no longer apply 180 days after publication in the **Federal Register**, and for all other sources the exemptions no longer apply as of the date of publication of the final rule in the **Federal Register**;
- Revised 40 CFR 63.7835, 63.7841, and 63.7842 to include the requirements to record and report information on failures to meet the applicable standard;
- Added 40 CFR 63.7840 and 63.7841 electronic reporting requirements of required summaries of performance test results and semiannual reports;
- Revised 40 CFR 63.7841(b)(4) to specify that for sources that commenced construction or reconstruction after August 16, 2019 a SSM plan and the information in 40 CFR 63.10(d)(5)(i) are no longer required 180 days after publication in the **Federal Register**;
- Added 40 CFR 63.7841(b)(12) to specify that for sources that commenced construction or reconstruction after August 16, 2019 a SSM report is no longer required 180 days after publication in the **Federal Register**;
- Revised 40 CFR 63.7842(a)(2) to specify records related to SSM to be kept;
- Revised Table 1 of 40 CFR part 63, subpart FFFFF to add a mercury emission limit, revised Table 2 to add demonstration of initial compliance with the mercury emission limit, and revised Table 3 to add demonstration of continuous compliance with the mercury emission limit;

- Revised Tables 1 and 3 of 40 CFR part 63, subpart FFFFF to clarify that opacity observations be made at all openings to the BF casthouse;
- Revised Tables 1, 2, and 3 of 40 CFR part 63, subpart FFFFF to clarify that the affected source is each BOPF shop; and
- Eliminated the SSM exemption with revisions to Table 4 (the General Provisions table) of 40 CFR part 63, subpart FFFFF and updated citations throughout the remaining rule text.

V. Summary of Cost, Environmental, and Economic Impacts and Additional Analyses Conducted

A. What are the affected sources?

The affected sources are facilities in the Integrated Iron and Steel Manufacturing Facilities source category. This includes any facility engaged in producing steel from iron ore. Integrated iron and steel manufacturing includes the following processes: Sinter production, iron production, iron preparation (hot metal desulfurization), and steel production. The iron production process includes the production of iron in BFs by the reduction of iron-bearing materials with a hot gas. The steel production process includes BOPF. Based on the data we have, there are eleven integrated iron and steel manufacturing facilities subject to this NESHAP, but one of these facilities is idle.

B. What are the air quality impacts?

We are promulgating standards for mercury that may result in unquantified reductions of mercury emissions and consequently improve air quality to some degree.

C. What are the cost impacts?

In this final rule, we require control of mercury emissions and allow sources to demonstrate compliance through performance testing or scrap selection requirements. We expect that facilities that choose scrap selection as their method of demonstrating compliance likely will not incur operational costs to comply with this requirement because we understand that most, if not all, facilities are already purchasing all their auto scrap from providers who participate in the NVMSRP. Therefore, we estimate a cost of $1,058 per year per facility and $11,639 per year for all 11 facilities in the industry, for recordkeeping and reporting of compliance with the standards.

D. What are the economic impacts?

Negligible economic impacts are expected to be incurred by integrated iron and steel facilities due to the mercury emission limit because the information available to the EPA indicates that most, if not all, facilities are already purchasing scrap from providers who participate in the NVMSRP.

E. What are the benefits?

These promulgated amendments may result in some unquantified reductions in emissions of mercury, depending on the extent of current limitation of mercury input or participation in the scrap selection program by integrated iron and steel facilities. While the industry has reported to the EPA that most, or all, facilities are already meeting the proposed mercury emission limit, to the extent that additional reductions may be achieved, this rule may result in improved health in surrounding populations, especially protection of children from the negative health impacts of mercury exposure.

The requirements to submit reports and test results electronically will reduce paperwork and improve monitoring, compliance, and implementation of the rule.

F. What analysis of environmental justice did we conduct?

For this action, we examined the potential for any environmental justice issues that might be associated with the source category through a demographic analysis, which is an assessment of risks to individual demographic groups of the populations living within 5 kilometer (km) and within 50 km of the facilities. In the analysis, we evaluated the distribution of HAP-related cancer and noncancer risks from point sources in the Integrated Iron and Steel Manufacturing Facilities source category across different demographic groups within the populations living near facilities.

The results of the demographic analysis are summarized in Table 5 below. These results, for various demographic groups, are based on the estimated risk from actual emissions from point sources for the population living within 50 km of the facilities.

TABLE 5—INTEGRATED IRON AND STEEL MANUFACTURING FACILITIES DEMOGRAPHIC RISK ANALYSIS RESULTS

Item	Nationwide	Population with cancer risk at or above 1-in-1 million due to integrated iron and steel manufacturing facilities	Population with chronic HI at or above 1 due to integrated iron and steel manufacturing facilities
Total Population	317,746,049	64,158	0
White and Minority by Percent			
White	62%	63%	0%
Minority	38%	37%	0%
Minority by Percent			
African American	12%	29%	0%
Native American	0.8%	0.1%	0%
Hispanic or Latino includes white and nonwhite)	18%	4%	0%
Other and Multiracial	7%	4%	0%
Income by Percent			
Below Poverty Level	14%	23%	0%
Above Poverty Level	86%	77%	0%
Education by Percent			
Over 25 and without High School Diploma	14%	12%	0%

TABLE 5—INTEGRATED IRON AND STEEL MANUFACTURING FACILITIES DEMOGRAPHIC RISK ANALYSIS RESULTS—Continued

Item	Nationwide	Population with cancer risk at or above 1-in-1 million due to integrated iron and steel manufacturing facilities	Population with chronic HI at or above 1 due to integrated iron and steel manufacturing facilities
Over 25 and with a High School Diploma	86%	88%	0%
Linguistically Isolated by Percent			
Linguistically Isolated	6%	0.6%	0%

The results of the Integrated Iron and Steel Manufacturing Facilities source category demographic analysis indicate that point source emissions from the source category expose approximately 64,000 people to a cancer risk at or above 1-in-1 million and zero people to a chronic noncancer HI greater than or equal to 1. The percentages of the at-risk population in each demographic group (except for African American and Below Poverty Level) are similar to or lower than their respective nationwide percentages. The African American population with cancer risk at or above 1-in-1 million due to Integrated Iron and Steel Manufacturing Facilities source category emissions is more than 3 times the national average. Likewise, populations living ''Below Poverty Level'' exposed to cancer risk at or above 1-in-1 million is nearly twice the national average. However, the risks to all demographic groups is less than 100-in-1 million.

The methodology and the results of the demographic analysis are presented in a technical report, *Risk and Technology Review—Analysis of Demographic Factors for Populations Living Near Integrated Iron and Steel Manufacturing Facilities* (Docket ID Item No. EPA–HQ–OAR–2002–0083–1060).

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 Orders 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

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

B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs

This action is not an Executive Order 13771 regulatory action because this action is not significant under Executive Order 12866.

C. Paperwork Reduction Act (PRA)

The information collection activities in this final rule have been submitted for approval to OMB under the PRA. The ICR document that the EPA prepared has been assigned EPA ICR number 2003.09. You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here. The information collection requirements are not enforceable until OMB approves them.

These amendments require electronic reporting; remove the SSM exemptions; and impose other revisions that affect reporting and recordkeeping for integrated iron and steel facilities. We are also promulgating standards for mercury that require facilities to certify the type of steel scrap they use or conduct a performance test. This information is collected to assure compliance with 40 CFR part 63, subpart FFFFF.

Respondents/affected entities: Integrated iron and steel manufacturing facilities.

Respondent's obligation to respond: Mandatory (40 CFR part 63, subpart FFFFF).

Estimated number of respondents: 11 facilities.

Frequency of Response: One time.

Total estimated burden: The annual recordkeeping and reporting burden for facilities to comply with all of the requirements in the NESHAP is estimated to be 6,500 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: The annual recordkeeping and reporting cost for all facilities to comply with all of the requirements in the NESHAP is estimated to be $800,000 (per year), of which $20,000 (per year) is for this rule, and $780,000 is for other costs related to continued compliance with the NESHAP including $50,300 for paperwork associated with operation and maintenance requirements. The total rule costs reflect a savings of $210,000 (per year) from the previous ICR due to the transition to electronic reporting.

An Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9. When OMB approves this ICR, the Agency will announce that approval in the **Federal Register** and publish a technical amendment to 40 CFR part 9 to display the OMB control number for the approved information collection activities contained in this final rule.

D. 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. No small entities are subject to the requirements of this rule.

E. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of $100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. While this action creates an enforceable duty on the private sector, the cost does not exceed $100 million or more.

F. 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.

G. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. It will not have substantial direct effects on tribal governments, 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. No tribal governments own facilities subject to the NESHAP. Thus, Executive Order 13175 does not apply to this action.

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

This action is not subject to Executive Order 13045 because the EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. This action's health and risk assessments are contained in sections III and IV of this preamble and further documented in the document titled *Residual Risk Assessment for the Integrated Iron and Steel Manufacturing Facilities Source Category in Support of the Risk and Technology Review 2020 Final Rule,* in the docket for this rule (Docket ID No. EPA–HQ–OAR–2002–0083).

I. 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 13211.

J. National Technology Transfer and Advancement Act (NTTAA) and 1 CFR Part 51

This action involves technical standards. Therefore, the EPA conducted searches for the Iron and Steel Manufacturing Facilities NESHAP through the Enhanced National Standards Systems Network Database managed by the American National Standards Institute (ANSI). We also contacted VCS organizations and accessed and searched their databases. We conducted searches for EPA Methods 1, 2, 2F, 2G, 3, 3A, 3B, 4, 5, 5D, 9, 17, 25, 29, and 30B of 40 CFR part 60, appendix A and SW–846 Method 9071B Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publications SW–846 third edition. During the EPA's VCS search, if the title or abstract (if provided) of the VCS described technical sampling and analytical procedures that are similar to the EPA's reference method, the EPA reviewed it as a potential equivalent method. We reviewed all potential standards to determine the practicality of the VCS for this rule. This review requires significant method validation data that meet the requirements of EPA Method 301 for accepting alternative methods or scientific, engineering and policy equivalence to procedures in the EPA reference methods. The EPA may reconsider determinations of impracticality when additional information is available for a particular VCS. No applicable VCS were identified for EPA Methods 1A, 2F, 2G, 5D, 30B, and SW–846 Method 9071B.

The EPA is incorporating by reference the VCS ANSI/ASME PTC 19.10–1981, ''Flue and Exhaust Gas Analyses.'' We are revising 40 CFR 63.7822(b), 40 CFR 63.7824(e), and 40 CFR 63.7825(b) to provide that the manual procedures (but not instrumental procedures) of VCS ANSI/ASME PTC 19.10–1981—Part 10 may be used as an alternative to EPA Method 3B.The manual procedures (but not instrumental procedures) of VCS ANSI/ASME PTC 19.10–1981—Part 10 (incorporated by reference—see 40 CFR 63.14) may be used as an alternative to EPA Method 3B for measuring the oxygen or carbon dioxide content of the exhaust gas. This standard is acceptable as an alternative to EPA Method 3B and is available from ASME at *http://www.asme.org;* by mail at Three Park Avenue, New York, NY 10016–5990; or by telephone at (800) 843–2763. This method determines quantitatively the gaseous constituents of exhausts resulting from stationary combustion sources. The gases covered in ANSI/ASME PTC 19.10–1981 are oxygen, carbon dioxide, carbon monoxide, nitrogen, sulfur dioxide, sulfur trioxide, nitric oxide, nitrogen dioxide, hydrogen sulfide, and hydrocarbons, however the use in this rule is only applicable to oxygen and carbon dioxide.

In the final rule, the EPA is incorporating by reference the VCS ASTM D7520–16, Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere, as an acceptable alternative to EPA Method 9 with the following caveats:

- During the DCOT certification procedure outlined in Section 9.2 of ASTM D7520–16, the facility or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand).
- The facility must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520–16.
- The facility must follow the recordkeeping procedures outlined in 40 CFR 63.10(b)(1) for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination.
- The facility or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15-percent opacity of anyone reading and the average error must not exceed 7.5-percent opacity.
- This approval does not provide or imply a certification or validation of any vendor's hardware or software. The onus to maintain and verify the certification and/or training of the DCOT camera, software, and operator in accordance with ASTM D7520–16 is on the facility, DCOT operator, and DCOT vendor. This method describes procedures to determine the opacity of a plume, using digital imagery and associated hardware and software, where opacity is caused by PM emitted from a stationary point source in the outdoor ambient environment. The opacity of emissions is determined by the application of a DCOT that consists of a digital still camera, analysis software, and the output function's content to obtain and interpret digital images to determine and report plume opacity. The ASTM D7520–16 document is available from ASTM at *https://www.astm.org* or 1100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, telephone number: (610) 832–9500, fax number: (610) 8329555 at *service@astm.org.*

The EPA is finalizing the use of the guidance document, *Fabric Filter Bag Leak Detection Guidance,* EPA–454/R–98–015, Office of Air Quality Planning and Standards (OAQPS), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina, September 1997. This document provides guidance on the use of triboelectric monitors as fabric filter bag leak detectors. The document includes fabric filter and monitoring system descriptions; guidance on monitor selection, installation, setup, adjustment, and operation; and quality assurance procedures. The document is available at *https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000D5T6.PDF.*

Additional information for the VCS search and determinations can be found

in the memorandum titled *Voluntary Consensus Standard Results for National Emission Standards for Hazardous Air Pollutants for Iron and Steel Manufacturing Facilities,* available in the docket for this final rule.

K. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations, and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). The documentation for this decision is included in sections III.A and IV.A of this preamble and the technical report titled *Risk and Technology Review—Analysis of Socio-Economic Factors for Populations Living Near Integrated Iron and Steel Manufacturing Facilities,* available in the docket for this final rule.

We examined the potential for any environmental justice issues that might be associated with the source category by performing a demographic analysis of the population close to the facilities. In this analysis, we evaluated the distribution of HAP-related cancer and noncancer risks from the NESHAP source category across different social, demographic, and economic groups within the populations living near facilities identified as having the highest risks. The methodology and the results of the demographic analyses are included in a technical report titled *Risk and Technology Review—Analysis of Socio-Economic Factors for Populations Living Near Integrated Iron and Steel Manufacturing Facilities* (Docket ID No. EPA–HQ–OAR–2002–0083).

The results of the source category demographic analysis for the NESHAP (point sources only) indicate that emissions expose approximately 60 people to a cancer risk at or above 10-in-1 million and none exposed to a chronic noncancer TOSHI greater than or equal to 1. The specific demographic results indicate that the overall percentage of the population potentially impacted by emissions is less than its corresponding national percentage for the minority population (37 percent for the source category compared to 38-percent nationwide). However, the ''African American'' population (29 percent for the source category compared to 12-percent nationwide) and the population ''Below the Poverty Level'' are greater than their corresponding national percentages. The proximity results (irrespective of risk) indicate that the population percentages for certain demographic categories within 5 km of source category emissions are greater than the corresponding national percentage for certain demographic groups including: ''African American,'' ''Ages 0 to 17,'' ''Over age 25 without a high school diploma,'' and ''Below the poverty level.''

The risks due to HAP emissions from this source category are acceptable for all populations. Furthermore, we do not expect this rule to achieve significant reductions in HAP emissions. Therefore, we conclude that this final rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not affect the level of protection provided to human health or the environment. However, this final rule will provide additional benefits to these demographic groups by improving the compliance, monitoring, and implementation of the NESHAP.

L. 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 in 40 CFR Part 63

Environmental protection, Administrative practice and procedures, Air pollution control, Hazardous substances, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Andrew Wheeler,

Administrator.

For the reasons set forth in the preamble, the EPA amends 40 CFR part 63 as follows:

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

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

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

Subpart A—General Provisions

■ 2. Section 63.14 is amended by revising paragraphs (e)(1), (h)(106), and (n)(3) to read as follows:

§ 63.14 Incorporations by reference.

* * * * *

(e) * * *

(1) ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], issued August 31, 1981, IBR approved for §§ 63.309(k), 63.457(k), 63.772(e) and (h), 63.865(b), 63.997(e), 63.1282(d) and (g), 63.1625(b), table 5 to subpart EEEE, 63.3166(a), 63.3360(e), 63.3545(a), 63.3555(a), 63.4166(a), 63.4362(a), 63.4766(a), 63.4965(a), 63.5160(d), table 4 to subpart UUUU, table3 to subpart YYYY, 63.7822(b), 63.7824(e), 63.7825(b), 63.9307(c), 63.9323(a), 63.11148(e), 63.11155(e), 63.11162(f), 63.11163(g), 63.11410(j), 63.11551(a), 63.11646(a), and 63.11945, table 5 to subpart DDDDD, table 4 to subpart JJJJJ, table 4 to subpart KKKKK, tables 4 and 5 of subpart UUUUU, table 1 to subpart ZZZZZ, and table 4 to subpart JJJJJJ.

* * * * *

(h) * * *

(106) ASTM D7520–16, Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere, approved April 1, 2016, IBR approved for §§ 63.1625(b), table 3 to subpart LLLLL, 63.7823(c) through (e), and 63.7833(g).

* * * * *

(n) * * *

(3) EPA–454/R–98–015, Office of Air Quality Planning and Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance, September 1997, *https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000D5T6.pdf,* IBR approved for §§ 63.548(e), 63.864(e), 63.7525(j), 63.7831(f), 63.8450(e), 63.8600(e), and 63.11224(f).

* * * * *

Subpart FFFFF—[Amended]

■ 3. Section 63.7783 is amended by revising paragraphs (a) introductory text, (b), and (c) and adding paragraph (f) to read as follows:

§ 63.7783 When do I have to comply with this subpart?

(a) If you have an existing affected source, you must comply with each emission limitation, standard, and operation and maintenance requirement in this subpart that applies to you by the dates specified in paragraphs (a)(1) and (2) of this section. This paragraph does not apply to the emission limitations for mercury.

* * * * *

(b) If you have a new affected source and its initial startup date is on or before May 20, 2003, then you must comply with each emission limitation, standard, and operation and maintenance requirement in this subpart that applies to you by May 20, 2003. This paragraph does not apply to the emission limitations for mercury.

(c) If you have a new affected source and its initial startup date is after May 20, 2003, you must comply with each emission limitation, standard, and operation and maintenance requirement in this subpart that applies to you upon initial startup. This paragraph does not apply to the emission limitations for mercury.

* * * * *

(f) With regard to the mercury emission limitations, if you have a new or existing affected source, you must comply with each emission limitation for mercury that applies to you by the deadlines set forth in § 63.7791.

■ 4. The undesignated center heading before § 63.7790 is revised to read:

Emission Limitations and Standards

■ 5. Section 63.7791 is added before the undesignated center heading ''Operation and Maintenance Requirements'' to read as follows:

§ 63.7791 How do I comply with the requirements for the control of mercury?

(a) *Compliance deadlines.* (1) If you have an existing affected source or a new or reconstructed affected source for which construction or reconstruction commenced on or before August 16, 2019, each BOPF Group at your facility must be in compliance with the applicable mercury emission limit in Table 1 of this subpart through performance testing under §§ 63.7825 and 63.7833, or through procurement of steel scrap pursuant to the compliance options in § 63.7791(c), (d), or (e) beginning July 13, 2021.

(2) If you have a new or reconstructed affected source for which construction or reconstruction commenced after August 16, 2019, each BOPF Group at that source must be in compliance with the applicable mercury emission limit in Table 1 of this subpart beginning July 13, 2020 or upon initial startup of your affected source, whichever is later.

(b) *Alternative compliance demonstration.* (1) As an alternative to demonstrating compliance with the emission limits in Table 1 by conducting performance tests pursuant to §§ 63.7825 and 63.7833(h), you may demonstrate compliance with the emission limits in Table 1 by procuring scrap pursuant to the requirements in paragraph (c), (d), or (e) of this section for each scrap provider, contract, or shipment. It is not necessary to use the same BOPF scrap compliance provision for all scrap providers, contracts, or shipments. You may procure some scrap through providers, contracts, or shipments pursuant to one BOPF scrap compliance provision and other scrap through providers, contracts, or shipments pursuant to other BOPF scrap compliance provisions.

(2) To utilize the alternative compliance options established in paragraph (b)(1) of this section, you must submit an initial certification of compliance and semiannual compliance reports consistent with the requirements of §§ 63.7840(f) and 63.7841(b)(9) through (11), and (13), and comply with the recordkeeping requirements in § 63.7842(e) and all other applicable provisions related to demonstrating compliance through participating in an approved mercury program or through the use of scrap that does not contain mercury switches.

(3) For any facility that initially elects to utilize the alternative compliance options established in paragraph (b)(1) of this section, but subsequently stops using scrap that meets the requirements of paragraph (c), (d), or (e) of this section for each scrap provider, contract, or shipment, within 180 days of the change you must, for that BOPF Group, demonstrate compliance through performance testing pursuant to the requirements of §§ 63.7825 and 63.7833(h), and submit a revised notice of compliance status in your next semiannual compliance report described in this section. You must also comply with the requirements for conducting subsequent performance tests in §§ 63.7821(e) and 63.7840(g), and all other applicable requirements related to demonstrating compliance with the emission limits through performance testing.

(c) *Participation in the NVMSRP.* (1) You must obtain all post-consumer scrap that contains motor vehicle scrap from scrap providers who participate in the NVMSRP. The NVMSRP is an EPA-approved program under this section unless and until the Administrator disapproves the program (in part or in whole);

(2) You must certify in your initial notification of compliance status required by § 63.7840(f) and semiannual compliance report required by § 63.7841(a) that you purchased post-consumer steel scrap containing motor vehicle scrap according to paragraph (c)(1) of this section, and identify all your scrap providers in your semiannual compliance report;

(3) If you purchase scrap from a broker, you must certify that all scrap received from that broker was obtained from other scrap providers who participate in the NVMSRP and identify all scrap providers used by all your scrap brokers in your semiannual compliance report; and

(4) You must conduct periodic inspections or provide other means of corroboration to ensure that scrap providers and brokers participate in the NVMSRP and, therefore, are aware of the need for and are implementing appropriate steps to minimize the presence of mercury in scrap from end-of-life vehicles.

(d) *Use of scrap that does not contain mercury switches.* For BOPF scrap not complying with the requirements in paragraph (c) or (e) of this section, you must certify in your initial notification of compliance report required by § 63.7840(f) and semiannual compliance report required by § 63.7841(a) and maintain records of documentation required by § 63.7842(e) establishing that the scrap does not contain mercury switches. You may satisfy this requirement by certifying and documenting that:

(1) The scrap does not contain motor vehicle scrap; or

(2) The scrap does not contain shredded motor vehicle scrap; or

(3) The only materials from motor vehicles in the scrap are materials recovered for their specialty alloy content (including, but not limited to, chromium, nickel, molybdenum, or other alloys); therefore, based on the type of the scrap and purchase specifications, the scrap does not contain mercury switches.

(e) *Use of an EPA-approved mercury removal program.* (1) You must obtain all post-consumer scrap containing motor vehicle scrap from scrap providers who participate in a program for the removal of mercury switches that has been approved by the Administrator;

(2) You must certify in your initial notification of compliance status required by § 63.7840(f) and semiannual compliance report required by § 63.7841(a) that you purchase post-consumer steel scrap containing motor vehicle scrap according to paragraph (e)(1) of this section and identify all your scrap providers in your semiannual compliance report;

(3) If you purchase scrap from a broker, you must certify that all scrap received from that broker was obtained from other scrap providers who participate in a program for the removal of mercury switches that has been approved by the Administrator and identify all scrap providers used by all your scrap brokers in your semiannual compliance report; and

(4) You must conduct periodic inspections or provide other means of corroboration to ensure that scrap providers and brokers are complying with the approved mercury removal

program and, therefore, are aware of the need for and are implementing appropriate steps to minimize the presence of mercury in scrap from end-of-life vehicles.

■ 6. Section 63.7800 is amended by revising paragraph (a) to read as follows:

§ 63.7800 What are my operation and maintenance requirements?

(a) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the requirements in § 63.7810(d).

* * * * *

■ 7. Section 63.7810 is amended by revising paragraphs (a) and (c) and adding paragraph (d) to read as follows:

§ 63.7810 What are my general requirements for complying with this subpart?

(a) On or before January 11, 2021, for each existing source, and for each new or reconstructed source for which construction or reconstruction commenced on or before August 16, 2019, you must be in compliance with the emission limitations, standards, and operation and maintenance requirements in this subpart at all times, except during periods of startup, shutdown, and malfunction. After January 11, 2021, for each such source you must be in compliance with the emission limitations in this subpart at all times. For new and reconstructed sources for which construction or reconstruction commenced after August 16, 2019, you must be in compliance with the emission limitations in this subpart at all times.

* * * * *

(c) On or before January 11, 2021, for each existing source, and for each new or reconstructed source for which construction or reconstruction commenced on or before August 16, 2019, you must develop a written startup, shutdown, and malfunction plan according to the provisions in § 63.6(e)(3). For each such source, a startup, shutdown, and malfunction plan is not required after January 11, 2021. No startup, shutdown, and malfunction plan is required for any new or reconstructed source for which construction or reconstruction commenced after August 16, 2019.

(d) On or before January 11, 2021, for each existing source, and for each new or reconstructed source for which construction or reconstruction commenced on or before August 16, 2019, you must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i). After January 11, 2021for each such source, and after July 13, 2020 for new and reconstructed sources for which construction or reconstruction commenced after August 16, 2019, at all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

■ 8. Section 63.7820 is amended by adding paragraph (e) to read as follows:

§ 63.7820 By what date must I conduct performance tests or other initial compliance demonstrations?

* * * * *

(e) Notwithstanding the deadlines in this section, existing and new affected sources must comply with the deadlines for making the initial compliance demonstrations for the mercury emission limit set forth in (e)(1) through (4) in this section.

(1) If you have an existing affected BOPF Group or a new or reconstructed affected source for which construction or reconstruction commenced on or before August 16, 2019, and you are demonstrating compliance with the emission limit in Table 1 through performance testing, you must conduct the initial performance test at your BOPF Group to demonstrate compliance with the mercury emission limit in Table 1 no later than July 13, 2021.

(2) If you have a new or reconstructed affected BOPF Group for which construction or reconstruction commenced after August 16, 2019, and you are demonstrating compliance with the emission limit in Table 1 through performance testing, you must conduct the initial performance test at your BOPF Group to demonstrate compliance with the mercury emission limit in Table 1 within 180 days of July 13, 2020 or within 180 days of initial startup of your affected source, whichever is later.

(3) If you have an existing affected BOPF Group or a new or reconstructed affected source for which construction or reconstruction commenced on or before August 16, 2019, and you are demonstrating compliance with the mercury emission limit in Table 1 through the requirements in § 63.7791(c) through (e), you must certify compliance in accordance with § 63.7840(f) in your notification of compliance and in accordance with § 63.7841(b)(11) in your first semiannual compliance report after July 13, 2021.

(4) If you have a new affected BOPF Group or a new or reconstructed affected source for which construction or reconstruction commenced after August 16, 2019, and you are demonstrating compliance with the mercury emission limit in Table 1 through the requirements in § 63.7791(b) through (d), you must certify compliance in accordance with § 63.7840(f) in your initial notification of compliance and in accordance with § 63.7841(b)(11) in your first semiannual compliance report after July 13, 2021 or after initial startup of your BOPF Group, whichever is later.

■ 9. Section 63.7821 is amended by revising paragraph (a) and adding paragraph (e) to read as follows:

§ 63.7821 When must I conduct subsequent performance tests?

(a) You must conduct subsequent performance tests to demonstrate compliance with all applicable emission and opacity limits in Table 1 to this subpart at the frequencies specified in paragraphs (b) through (e) of this section.

* * * * *

(e) For each BOPF Group, if demonstrating compliance with the mercury emission limit in Table 1 to this subpart through performance testing under §§ 63.7825 and 63.7833, you must conduct subsequent performance tests twice per permit cycle (*i.e.,* mid-term and initial/final) for sources with title V operating permits, and every 2.5 years for sources without a title V operating permit, at the outlet of the control devices for the BOPF Group.

■ 10. Section 63.7822 is amended by revising paragraphs (a) and (b)(1) to read as follows:

§ 63.7822 What test methods and other procedures must I use to demonstrate initial compliance with the emission limits for particulate matter?

(a) On or before January 11, 2021, for each existing source, and for each new or reconstructed source for which construction or reconstruction commenced on or before August 16, 2019, you must conduct each performance test that applies to your

affected source based on representative performance (*i.e.,* performance based on normal operating conditions) of the affected source for the period being tested, according to the conditions detailed in paragraphs (b) through (i) of this section. After January 11, 2021 for each such source, and after July 13, 2020 for new and reconstructed sources for which construction or reconstruction commenced after August 16, 2019, you must conduct each performance test under conditions representative of normal operations. The owner or operator must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. Representative conditions exclude periods of startup and shutdown. You shall not conduct performance tests during periods of malfunction. You must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(b) * * *

(1) Determine the concentration of particulate matter according to the following test methods:

(i) EPA Method 1 in appendix A–1 to part 60 of this chapter to select sampling port locations and the number of traverse points. Sampling ports must be located at the outlet of the control device and prior to any releases to the atmosphere.

(ii) EPA Method 2 or 2F in appendix A–1 to part 60 of this chapter or EPA Method 2G in appendix A–2 to part 60 of this chapter to determine the volumetric flow rate of the stack gas.

(iii) EPA Method 3, 3A, or 3B in appendix A–2 to part 60 of this chapter to determine the dry molecular weight of the stack gas. The manual procedures (but not instrumental procedures) of voluntary consensus standard ANSI/ASME PTC 19.10–1981—Part 10 (incorporated by reference—see § 63.14) may be used as an alternative to EPA Method 3B.

(iv) EPA Method 4 in appendix A–3 to part 60 of this chapter to determine the moisture content of the stack gas.

(v) EPA Method 5 or 5D in appendix A–3 to part 60 of this chapter or EPA Method 17 in appendix A–6 to part 60 of this chapter, as applicable, to determine the concentration of particulate matter (front half filterable catch only).

* * * * *

■ 11. Section 63.7823 is amended by revising paragraphs (a), (c)(1), (d)(1)(i), (d)(2)(i), and (e)(1) and (3) to read as follows:

§ 63.7823 What test methods and other procedures must I use to demonstrate initial compliance with the opacity limits?

(a) You must conduct each performance test that applies to your affected source based on representative performance (*i.e.,* performance based on normal operating conditions) of the affected source for the period being tested, according to the conditions detailed in paragraphs (b) through (d) of this section. Representative conditions exclude periods of startup and shutdown. You shall not conduct performance tests during periods of malfunction. You must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

* * * * *

(c) * * *

(1) Using a certified observer, determine the opacity of emissions according to EPA Method 9 in appendix A–4 to part 60 of this chapter. Alternatively, ASTM D7520–16, (incorporated by reference, see § 63.14) may be used with the following conditions:

(i) During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520–16 (incorporated by reference, see § 63.14), the owner or operator or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand).

(ii) The owner or operator must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520–16 (incorporated by reference, see § 63.14).

(iii) The owner or operator must follow the recordkeeping procedures outlined in § 63.10(b)(1) for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination.

(iv) The owner or operator or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15-percent opacity of anyone reading and the average error must not exceed 7.5-percent opacity.

(v) Use of this approved alternative does not provide or imply a certification or validation of any vendor's hardware or software. The onus to maintain and verify the certification and/or training of the DCOT camera, software, and operator in accordance with ASTM D7520–16 (incorporated by reference, see § 63.14) and these requirements is on the facility, DCOT operator, and DCOT vendor.

* * * * *

(d) * * *

(1) * * *

(i) Using a certified observer, determine the opacity of emissions according to EPA Method 9 in appendix A–4 to part 60 of this chapter except as specified in paragraphs (d)(1)(ii) and (iii) of this section. Alternatively, ASTM D7520–16 (incorporated by reference, see § 63.14) may be used with the following conditions:

(A) During the DCOT certification procedure outlined in Section 9.2 of ASTM D7520–16 (incorporated by reference, see § 63.14), the owner or operator or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand).

(B) The owner or operator must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520–16 (incorporated by reference, see § 63.14).

(C) The owner or operator must follow the recordkeeping procedures outlined in § 63.10(b)(1) for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination.

(D) The owner or operator or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification

plumes. For each set of 25 plumes, the user may not exceed 15-percent opacity of anyone reading and the average error must not exceed 7.5-percent opacity.

(E) Use of this approved alternative does not provide or imply a certification or validation of any vendor's hardware or software. The onus to maintain and verify the certification and/or training of the DCOT camera, software, and operator in accordance with ASTM D7520–16 (incorporated by reference, see § 63.14) and these requirements is on the facility, DCOT operator, and DCOT vendor.

* * * * *

(2) * * *

(i) Using a certified observer, determine the opacity of emissions according to EPA Method 9 in appendix A–4 to part 60 of this chapter. Alternatively, ASTM D7520–16 (incorporated by reference, see § 63.14) may be used with the following conditions:

(A) During the DCOT certification procedure outlined in Section 9.2 of ASTM D7520–16 (incorporated by reference, see § 63.14), the owner or operator or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand).

(B) The owner or operator must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520–16 (incorporated by reference, see § 63.14).

(C) The owner or operator must follow the recordkeeping procedures outlined in § 63.10(b)(1) for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination.

(D) The owner or operator or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15-percent opacity of anyone reading and the average error must not exceed 7.5-percent opacity.

(E) Use of this approved alternative does not provide or imply a certification or validation of any vendor's hardware or software. The onus to maintain and verify the certification and/or training of the DCOT camera, software, and operator in accordance with ASTM D7520–16 (incorporated by reference, see § 63.14) and these requirements is on the facility, DCOT operator, and DCOT vendor.

* * * * *

(e) * * *

(1) Using a certified observer, determine the opacity of emissions according to EPA Method 9 in appendix A–4 to part 60 of this chapter. Alternatively, ASTM D7520–16 (incorporated by reference, see § 63.14) may be used with the following conditions:

(i) During the DCOT certification procedure outlined in Section 9.2 of ASTM D7520–16 (incorporated by reference, see § 63.14), the owner or operator or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand).

(ii) The owner or operator must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520–16 (incorporated by reference, see § 63.14).

(iii) The owner or operator must follow the recordkeeping procedures outlined in § 63.10(b)(1) for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination.

(iv) The owner or operator or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15-percent opacity of anyone reading and the average error must not exceed 7.5-percent opacity.

(v) Use of this approved alternative does not provide or imply a certification or validation of any vendor's hardware or software. The onus to maintain and verify the certification and/or training of the DCOT camera, software, and operator in accordance with ASTM D7520–16 (incorporated by reference, see § 63.14) and these requirements is on the facility, DCOT operator, and DCOT vendor.

* * * * *

(3) Make visible emission observations of uncovered portions of sinter plant coolers with the line of sight generally in the direction of the center of the cooler.

■ 12. Section 63.7824 is amended by revising paragraphs (e) introductory text and (e)(1) and (2) and the defined term "M_c" in Equation 1 in paragraph (e)(3) to read as follows:

§ 63.7824 What test methods and other procedures must I use to establish and demonstrate initial compliance with operating limits?

* * * * *

(e) To demonstrate initial compliance with the alternative operating limit for volatile organic compound emissions from the sinter plant windbox exhaust stream in § 63.7790(d)(2), follow the test methods and procedures in paragraphs (e)(1) through (5) of this section. You must conduct each performance test that applies to your affected source based on representative performance (*i.e.,* performance based on normal operating conditions) of the affected source for the period being tested. Representative conditions exclude periods of startup and shutdown. You shall not conduct performance tests during periods of malfunction. You must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(1) Determine the volatile organic compound emissions according to the following test methods:

(i) EPA Method 1 in appendix A–1 to part 60 of this chapter to select sampling port locations and the number of traverse points. Sampling ports must be located at the outlet of the control device and prior to any releases to the atmosphere.

(ii) EPA Method 2 or 2F in appendix A–1 to part 60 of this chapter or EPA Method 2G in appendix A–2 to part 60 of this chapter to determine the volumetric flow rate of the stack gas.

(iii) EPA Method 3, 3A, or 3B in appendix A–2 to part 60 of this chapter to determine the dry molecular weight of the stack gas. The manual procedures (but not instrumental procedures) of voluntary consensus standard ANSI/ASME PTC 19.10–1981—Part 10 (incorporated by reference—see § 63.14) may be used as an alternative to EPA Method 3B.

(iv) EPA Method 4 in appendix A–3 to part 60 of this chapter to determine the moisture content of the stack gas.

(v) EPA Method 25 in appendix A–7 to part 60 of this chapter to determine the mass concentration of volatile organic compound emissions (total gaseous nonmethane organics as carbon) from the sinter plant windbox exhaust stream stack.

(2) Determine volatile organic compound (VOC) emissions every 24 hours (from at least three samples taken at 8-hour intervals) using EPA Method 25 in appendix A–7 to part 60 of this chapter. Record the sampling date and time, sampling results, and sinter produced (tons/day).

(3) * * *

M_c = Average concentration of total gaseous nonmethane organics as carbon by EPA Method 25 in appendix A–7 to part 60 of this chapter, milligrams per dry standard cubic meters (mg/dscm) for each day;

* * * * *

§ § 63.7825 and 63.7826 [Redesignated as §§ 63.7826 and 63.7827]

■ 13. Sections 63.7825 and 63.7826 are redesignated as §§ 63.7826 and 63.7827, respectively, and a new § 63.7825 is added to read as follows:

§ 63.7825 What test methods and other procedures must I use to demonstrate initial compliance with the emission limit for mercury?

(a) If demonstrating compliance with the mercury emission limits for each BOPF Group in Table 1 to this subpart through performance testing, you must conduct a performance test to demonstrate initial compliance with the emission limit. If demonstrating compliance with the emission limit through performance testing, you must conduct each performance test that applies to your affected source based on representative performance (*i.e.,* performance based on normal operating conditions) of the affected source for the period being tested, according to the conditions detailed in paragraphs (b) through (f) of this section. Representative conditions exclude periods of startup and shutdown. You shall not conduct performance tests during periods of malfunction. Initial compliance tests must be conducted by the deadlines in § 63.7820(e).

(1) You must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(2) For sources with multiple emission units ducted to a common control device and stack, compliance testing must be performed either by conducting a single compliance test with all affected emissions units in operation or by conducting a separate compliance test on each emissions unit. Alternatively, the owner or operator may request approval from the permit authority for an alternative testing approach. If the units are tested separately, any emissions unit that is not tested initially must be tested as soon as is practicable.

(b) To demonstrate compliance with the emission limit for mercury in Table 1 to this subpart through performance testing, follow the test methods and procedures in paragraphs (b)(1) and (2) of this section.

(1) Determine the concentration of mercury according to the following test methods:

(i) EPA Method 1 in appendix A–1 to part 60 of this chapter to select sampling port locations and the number of traverse points. Sampling ports must be located at the outlet of the control device and prior to any releases to the atmosphere.

(ii) EPA Method 2 or 2F in appendix A–1 to part 60 of this chapter or EPA Method 2G in appendix A–2 to part 60 of this chapter to determine the volumetric flow rate of the stack gas.

(iii) EPA Method 3, 3A, or 3B in appendix A–2 to part 60 of this chapter to determine the dry molecular weight of the stack gas. The manual procedures (but not instrumental procedures) of voluntary consensus standard ANSI/ASME PTC 19.10–1981—Part 10 (incorporated by reference—see § 63.14) may be used as an alternative to EPA Method 3B.

(iv) EPA Method 4 in appendix A–3 to part 60 of this chapter to determine the moisture content of the stack gas.

(v) EPA Method 29 or 30B in appendix A–8 to part 60 of this chapter to determine the concentration of mercury from each unit of the BOPF Group exhaust stream stack. If performing measurements using EPA Method 29, you must collect a minimum sample volume of 1.7 dscm (60 dscf). Alternative test methods may be considered on a case-by-case basis per § 63.7(f).

(2) Three valid test runs are needed to comprise a performance test of each BOPF Group unit. If the performance testing results for any of the emission points yields a non-detect value, then the minimum detection limit (MDL) must be used to calculate the mass emissions (lb) for that emission unit and, in turn, for calculating the sum of the emissions (in units of pounds of mercury per ton of steel scrap) for all BOPF Group units subject to the emission standard for determining compliance. If the resulting mercury emissions are greater than the MACT emission standard, the owner or operator may use procedures that produce lower MDL results and repeat the mercury performance testing one additional time for any emission point for which the measured result was below the MDL. If this additional testing is performed, the results from that testing must be used to determine compliance (*i.e.,* there are no additional opportunities allowed to lower the MDL).

(3) For a primary emission control device applied to emissions from a BOPF with a closed hood system, sample only during the primary oxygen blow and do not sample during any subsequent reblows. Continue sampling for each run for an integral number of primary oxygen blows.

(4) For a primary emission control system applied to emissions from a BOPF with an open hood system and for a control device applied solely to secondary emissions from a BOPF, you must complete the requirements of paragraphs (b)(4)(i) and (ii) of this section:

(i) Sample only during the steel production cycle. Conduct sampling under conditions that are representative of normal operation. Record the start and end time of each steel production cycle and each period of abnormal operation; and

(ii) Sample for an integral number of steel production cycles. The steel production cycle begins when the scrap is charged to the furnace and ends 3 minutes after the slag is emptied from the vessel into the slag pot.

(5) For a control device applied to emissions from BOPF shop ancillary operations (hot metal transfer, skimming, desulfurization, or ladle metallurgy), sample only when the operation(s) is being conducted.

(c) Calculate the mercury mass emissions, based on the average of three test run values, for each BOPF Group unit (or combination of units that are ducted to a common stack and are tested when all affected sources are operating pursuant to paragraph (a) of this section) using Equation 1 of this section as follows:

$$E = \frac{C_s \times Q \times t}{454{,}000 \times 35.31} \quad \text{(Eq. 1)}$$

Where:

E = Mass emissions of mercury, pounds (lb);

C_s = Concentration of mercury in stack gas, mg/dscm;

454,000 = Conversion factor (mg/lb);

Q = Volumetric flow rate of stack gas, dscf/min;

35.31 = Conversion factor (dscf/dscm); and

t = Duration of test, minutes.

(d) You must install, calibrate, maintain, and operate an appropriate

weight measurement device, to measure the tons of steel scrap input to the BOPF cycle simultaneous with each BOPF Group unit's stack test.

(e) You must maintain the systems for measuring weight within ±5 percent accuracy. You must describe the specific equipment used to make measurements at your facility and how that equipment is periodically calibrated. You must also explain, document, and maintain written procedures for determining the accuracy of the measurements and make these written procedures available to your permitting authority upon request. You must determine, record, and maintain a record of the accuracy of the measuring systems before the beginning of your initial compliance test and during each subsequent quarter of affected source operation.

(f) Calculate the emissions from each new and existing affected source in pounds of mercury per ton of steel scrap to determine initial compliance with the mercury emission limit in Table 1. Sum the mercury mass emissions (in pounds) from all BOPF Group units calculated using Equation 1 of this section. Divide that sum by the sum of the total amount of steel scrap charged to the BOPFs (in tons).

■ 14. Section 63.7831 is amended by revising paragraphs (a)(4) through (6) and (f)(4) to read as follows:

§ 63.7831 What are the installation, operation, and maintenance requirements for my monitors?

(a) * * *

(4) On or before January 11, 2021, for each existing source, and for each new or reconstructed source for which construction or reconstruction commenced on or before August 16, 2019, ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1)(ii), (c)(3), (c)(4)(ii), and (c)(7) and (8). After January 11, 2021 for each such source, and after July 13, 2020 for new and reconstructed sources for which construction or reconstruction commenced after August 16, ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1)(ii), (c)(3), (c)(4)(ii), and (c)(7) and (8);

(5) On or before January 11, 2021, for each existing source, and for each new or reconstructed source for which construction or reconstruction commenced on or before August 16, 2019, ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d). After January 11, 2021 for each such source, and after July 13, 2020 for new and reconstructed sources for which construction or reconstruction commenced after August 16, 2019, ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d) except for the requirements related to startup, shutdown, and malfunction plans referenced in § 63.8(d)(3). The owner or operator shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (*i.e.,* superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. The program of corrective action should be included in the plan required under § 63.8(d)(2);

(6) On or before January 11, 2021, for each existing source, and for each new or reconstructed source for which construction or reconstruction commenced on or before August 16, 2019, ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c)(1) through (14), (e)(1), and (e)(2)(i). After January 11, 2021 for each such source, and after July 13, 2020 for new and reconstructed sources for which construction or reconstruction commenced after August 16, 2019, ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c)(1) through (14), (e)(1), and (e)(2)(i);

* * * * *

(f) * * *

(4) Each system that works based on the triboelectric effect must be installed, operated, and maintained in a manner consistent with the guidance document, ''Fabric Filter Bag Leak Detection Guidance,'' EPA–454/R–98–015 (incorporated by reference, see § 63.14). You may install, operate, and maintain other types of bag leak detection systems in a manner consistent with the manufacturer's written specifications and recommendations.

* * * * *

■ 15. Section 63.7833 is amended by revising paragraph (g)(3) and adding paragraphs (h) and (i) to read as follows:

§ 63.7833 How do I demonstrate continuous compliance with the emission limitations that apply to me?

* * * * *

(g) * * *

(3) For purposes of paragraphs (g)(1) and (2) of this section, in the case of an exceedance of the hourly average opacity operating limit for an electrostatic precipitator, measurements of the hourly average opacity based on visible emission observations in accordance with EPA Method 9 (in appendix A–4 to part 60) may be taken to evaluate the effectiveness of corrective action. ASTM D7520–16 (incorporated by reference, see § 63.14) may be used with the following conditions:

(i) During the DCOT certification procedure outlined in Section 9.2 of ASTM D7520–16 (incorporated by reference, see § 63.14), the owner or operator or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand).

(ii) The owner or operator must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520–16 (incorporated by reference, see § 63.14).

(iii) The owner or operator must follow the recordkeeping procedures outlined in § 63.10(b)(1) for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination.

(iv) The owner or operator or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15-percent opacity of anyone reading and the average error must not exceed 7.5-percent opacity.

(v) Use of this approved alternative does not provide or imply a certification or validation of any vendor's hardware or software. The onus to maintain and verify the certification and/or training of the DCOT camera, software, and operator in accordance with ASTM D7520–16 (incorporated by reference, see § 63.14) and these requirements is on the facility, DCOT operator, and DCOT vendor.

* * * * *

(h) If you are demonstrating compliance with the mercury emission limits in Table 1 of this section for your BOPF Groups through performance testing, you must conduct mercury performance tests in accordance with §§ 63.7821(e) and 63.7825 and calculate

the emissions from each new and existing affected source in pounds of mercury per ton of steel scrap to determine compliance with the mercury emission limits in Table 1. Sum the mercury mass emissions (in pounds) from all BOPF Group units calculated using Equation 1 of § 63.7825. Divide that sum by the sum of the total amount of steel scrap charged to the BOPFs (in tons).

(i) If you are demonstrating compliance with the mercury emission limits in Table 1 of this section for your BOPF Groups by certifying participation in the NVMSRP or another EPA-approved mercury program, or by using scrap that does not contain mercury switches, you must obtain and certify your use of steel scrap per § 63.7791(c), (d), or (e), as applicable, and § 63.7841(b)(11) to demonstrate continuous compliance with the standard.

■ 16. Section 63.7835 is revised to read as follows:

§ 63.7835 What other requirements must I meet to demonstrate continuous compliance?

Except as provided in § 63.7833(g), you must report each instance in which you did not meet each emission limitation in § 63.7790 that applies to you. This includes periods of startup, shutdown, and malfunction. You also must report each instance in which you did not meet each operation and maintenance requirement in § 63.7800 that applies to you. These instances are deviations from the emission limitations and operation and maintenance requirements in this subpart. These deviations must be reported according to the requirements in § 63.7841.

(a) In the event that an affected unit fails to meet an applicable standard, record the date, time, and duration of each failure.

(b) For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions.

(c) Record actions taken to minimize emissions in accordance with § 63.7810(d), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(d) For existing sources and for new or reconstructed sources which commenced construction or reconstruction on or before August 16, 2019, before January 11, 2021, consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with § 63.6(e)(1). The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in § 63.6(e). After January 11, 2021 for such sources, and after July 13, 2020 for new and reconstructed sources which commence construction or reconstruction after August 16, 2019, the exemptions for periods of startup, shutdown, and malfunction in § 63.6(e) no longer apply.

■ 17. Section 63.7840 is amended by revising paragraphs (d), (e) introductory text, and (e)(2) and adding paragraphs (f) through (h) to read as follows:

§ 63.7840 What notifications must I submit and when?

* * * * *

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in § 63.7(b)(1). For the first mercury compliance test in the BOPF Group for anyone sequence of tests, you must include a schedule of all subsequent tests in the BOPF Group in the test series.

(e) If you are required to conduct a performance test, opacity observation, or other initial compliance demonstration, you must submit a notification of compliance according to § 63.9(h)(2)(ii), except that for the purposes of submitting the notification of compliance status for BOPF Group mercury testing, the performance test shall be considered complete when the final unit or control device in the BOPF Group in the sequence is tested.

* * * * *

(2) For each initial compliance demonstration that includes a performance test, you must submit the notification of compliance status, including the summary of performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to § 63.10(d)(2).

(f) The notification of compliance status required by §§ 63.9(b) and (h) and 63.7826(c) must include each applicable certification of compliance, signed by a responsible official, in paragraphs (f)(1) and (2) of this section, regarding the mercury requirements, as applicable, in § 63.7791(c) through (e).

(1) ''This facility participates in and purchases scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the EPA Administrator, in accordance with § 63.7791(c) or (e)''; or

(2) ''This facility complies with the requirements for scrap that does not contain mercury switches, in accordance with § 63.7791(d).''

(g) Within 60 calendar days after the date of completing each performance test required by this subpart, you must submit the results of the performance test following the procedures specified in paragraphs (g)(1) through (3) of this section. Where applicable, you may assert a claim of EPA system outage, in accordance with § 63.7841(e), or force majeure, in accordance with § 63.7841(f), for failure to timely comply with this requirement.

(1) Data collected using test methods supported by EPA's Electronic Reporting Tool (ERT) as listed on EPA's ERT website (*https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert*) at the time of the test. Submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*). The data must be submitted in a file format generated through the use of EPA's ERT. Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on EPA's ERT website.

(2) Data collected using test methods that are not supported by EPA's ERT as listed on EPA's ERT website at the time of the test. The results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI.

(3) Confidential business information (CBI). If you claim some of the information submitted under paragraph (g) of this section is CBI, you must submit a complete file, including information claimed to be CBI, to the EPA. The file must be generated through the use of EPA's ERT or an alternate electronic file consistent with the XML schema listed on EPA's ERT website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via EPA's CDX as described in paragraph (g) of this section.

(h) Within 60 calendar days after the date of completing each continuous monitoring system (CMS) performance evaluation (as defined in § 63.2), you must submit the results of the performance evaluation following the procedures specified in paragraphs (h)(1) through (3) of this section. Where applicable, you may assert a claim of EPA system outage, in accordance with § 63.7841(e), or force majeure, in accordance with § 63.7841(f), for failure to timely comply with this requirement.

(1) Performance evaluations of CMS measuring relative accuracy test audit (RATA) pollutants that are supported by EPA's ERT as listed on EPA's ERT website at the time of the evaluation. Submit the results of the performance evaluation to the EPA via CEDRI, which can be accessed through EPA's CDX. The data must be submitted in a file format generated through the use of EPA's ERT. Alternatively, you may submit an electronic file consistent with the XML schema listed on EPA's ERT website.

(2) Performance evaluations of CMS measuring RATA pollutants that are not supported by EPA's ERT as listed on EPA's ERT website at the time of the evaluation. The results of the performance evaluation must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI.

(3) Confidential business information (CBI). If you claim some of the information submitted under this paragraph (h) is CBI, you must submit a complete file, including information claimed to be CBI, to the EPA. The file must be generated through the use of EPA's ERT or an alternate electronic file consistent with the XML schema listed on EPA's ERT website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via EPA's CDX as described in this paragraph (h).

■ 18. Section 63.7841 is amended by:

■ a. Revising paragraphs (b) introductory text, (b)(4), (b)(7) introductory text, (b)(7)(ii), (b)(8) introductory text, and (b)(8)(ii), (iv), and (vi);

■ b. Adding paragraphs (b)(9) through (13);

■ c. Revising paragraph (c);

■ d. Redesignating paragraph (d) as paragraph (g) and revising it; and

■ e. Adding new paragraph (d) and paragraphs (e) and (f).

The revisions and additions read as follows:

§ 63.7841 What reports must I submit and when?

* * * * *

(b) *Compliance report contents.* Each compliance report must include the information in paragraphs (b)(1) through (3) of this section and, as applicable, paragraphs (b)(4) through (13) of this section.

* * * * *

(4) For existing sources and for new or reconstructed sources for which construction or reconstruction commenced on or before August 16, 2019, before January 11, 2021, if you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in § 63.10(d)(5)(i). A startup, shutdown, and malfunction plan and the information in § 63.10(d)(5)(i) is not required after January 11, 2021.

* * * * *

(7) For each deviation from an emission limitation in § 63.7790 that occurs at an affected source where you are not using a continuous monitoring system (including a CPMS, COMS, or CEMS) to comply with an emission limitation in this subpart, the compliance report must contain the information in paragraphs (b)(1) through (4) of this section, the information in paragraphs (b)(7)(i) and (ii) of this section, and the information in (b)(13) of this section. This includes periods of startup, shutdown, and malfunction.

* * * * *

(ii) Information on the duration and cause of deviations (including unknown cause, if applicable) as applicable and the corrective action taken.

* * * * *

(8) For each deviation from an emission limitation occurring at an affected source where you are using a continuous monitoring system (including a CPMS or COMS) to comply with the emission limitation in this subpart, you must include the information in paragraphs (b)(1) through (4) of this section, the information in paragraphs (b)(8)(i) through (xi) of this section, and the information in (b)(13) of this section. This includes periods of malfunction.

* * * * *

(ii) The date, time, and duration that each continuous monitoring was inoperative, except for zero (low-level) and high-level checks.

* * * * *

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a malfunction or during another period.

* * * * *

(vi) A breakdown of the total duration of the deviations during the reporting period including those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

* * * * *

(9) Any deviation from the requirements in § 63.7791 and the corrective action taken. For each deviation, you must include the information in (b)(13) of this section.

(10) If there were no deviations from the requirements in § 63.7791, a statement that there were no deviations from the requirements during the reporting period.

(11) If the facility demonstrates compliance with the mercury emission limits in Table 1 through the compliance options in § 63.7791(c), (d), or (e), the report must contain the applicable statement in paragraphs (b)(11)(i) and (ii) of this section, as applicable.

(i) ''This facility participates in and purchases scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the EPA Administrator, in accordance with § 63.7791(c) or (e)''; or

(ii) ''This facility complies with the requirements for scrap that does not contain mercury switches, in accordance with § 63.7791(d).''

(12) For existing sources and for new or reconstructed sources which commenced construction or reconstruction on or before August 16, 2019, before January 11, 2021, for each startup, shutdown, or malfunction during the reporting period that is not consistent with your startup, shutdown, and malfunction plan you must submit an immediate startup, shutdown and malfunction report. Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report according to paragraphs (f)(1) and (2) of this section. An immediate startup, shutdown, and malfunction report is not required after January 11, 2021.

(13) Beginning on January 11, 2021 if you failed to meet an applicable standard, the compliance report must

include the start date, start time, and duration of each failure. For each failure, the compliance report must include a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

(c) *Use of CEDRI template.* Beginning on January 11, 2021 or 180 days after the date the reporting template becomes available in CEDRI, whichever is later, submit all subsequent reports following the procedure specified in paragraph (d) of this section.

(d) *CEDRI submission.* If you are required to submit reports following the procedure specified in this paragraph, you must submit reports to the EPA via CEDRI, which can be accessed through EPA's CDX (*https://cdx.epa.gov/*). You must use the appropriate electronic report template on the CEDRI website (*https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri*) for this subpart. The date report templates become available will be listed on the CEDRI website. The report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. If you claim some of the information required to be submitted via CEDRI is CBI, submit a complete report, including information claimed to be CBI, to the EPA. The report must be generated using the appropriate form on the CEDRI website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via EPA's CDX as described earlier in this paragraph.

(e) *CDX outage.* If you are required to electronically submit a report through CEDRI in EPA's CDX, you may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. To assert a claim of EPA system outage, you must meet the requirements outlined in paragraphs (e)(1) through (7) of this section.

(1) You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either EPA's CEDRI or CDX systems.

(2) The outage must have occurred within the period of time beginning five business days prior to the date that the submission is due.

(3) The outage may be planned or unplanned.

(4) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(5) You must provide to the Administrator a written description identifying:

(i) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;

(iii) Measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(6) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(7) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.

(f) *Claim of force majeure.* If you are required to electronically submit a report through CEDRI in EPA's CDX, you may assert a claim of force majeure for failure to timely comply with the reporting requirement. To assert a claim of force majeure, you must meet the requirements outlined in paragraphs (f)(1) through (5) of this section.

(1) You may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (*e.g.,* hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (*e.g.,* large scale power outage).

(2) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(3) You must provide to the Administrator:

(i) A written description of the force majeure event;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;

(iii) Measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(4) The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(5) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

(g) *Part 70 monitoring report.* If you have obtained a title V operating permit for an affected source pursuant to part 70 or 71 of this chapter, you must report all deviations as defined in this subpart in the semiannual monitoring report required by § 70.6(a)(3)(iii)(A) or § 71.6(a)(3)(iii)(A) of this chapter. If you submit a compliance report for an affected source along with, or as part of, the semiannual monitoring report required by § 70.6(a)(3)(iii)(A) or § 71.6(a)(3)(iii)(A) of this chapter, and the compliance report includes all the required information concerning deviations from any emission limitation, standard, or operation and maintenance requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for an affected source to your permitting authority.

■ 19. Section 63.7842 is amended by:
■ a. Revising paragraph (a)(2);
■ b. Redesignating paragraph (a)(3) as paragraph (a)(5);
■ c. Adding new paragraph (a)(3) and paragraph (a)(4);
■ d. Revising paragraph (b)(3); and
■ e. Adding paragraph (e).

The revisions and additions read as follows:

§ 63.7842 What records must I keep?

(a) * * *

(2) For existing sources and for new or reconstructed sources which commenced construction or reconstruction on or before August 16, 2019, before January 11, 2021, the records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction for a period of five years. A

startup, shutdown, and malfunction plan is not required after January 11, 2021.

(3) For each failure to meet an applicable standard, a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

(4) Records of the actions taken to minimize emissions in accordance with § 63.7810(d), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

* * * * *

(b) * * *

(3) Previous (that is, superseded) versions of the performance evaluation plan required under § 63.8(d)(2), with the program of corrective action included in the plan.

* * * * *

(e) If you are demonstrating compliance with the mercury emission limit in Table 1 through § 63.7791(c), you must keep records to demonstrate compliance with the requirements for mercury in § 63.7791(c) as applicable. If you are demonstrating compliance with the mercury emission limit in Table 1 through § 63.7791(d), you must keep records documenting compliance with § 63.7791(d) for scrap that does not contain mercury switches. If you are demonstrating compliance with the mercury emission limit in Table 1 through § 63.7791(e), you must maintain records identifying each scrap provider and documenting the scrap provider's participation in an approved mercury switch removal program. If you purchase scrap from a broker, you must maintain records identifying each broker and documentation that all scrap provided by the broker was obtained from other scrap providers who participate in an approved mercury switch removal program.

■ 20. Section 63.7851 is amended by revising paragraph (c) introductory text and adding paragraph (c)(5) to read as follows:

§ 63.7851 Who implements and enforces this subpart?

* * * * *

(c) The authorities that will not be delegated to State, local, or tribal agencies are specified in paragraphs (c)(1) through (5) of this section.

* * * * *

(5) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

■ 21. Section 63.7852 is amended by:

■ a. Adding in alphabetical order a definition for ''basic oxygen process furnace group'';

■ b. Revising the definition of ''deviation''; and

■ c. Adding in alphabetical order definitions for ''mercury switch'', ''motor vehicle'', ''motor vehicle scrap'', ''opening'', ''post-consumer steel scrap'', ''pre-consumer steel scrap'', ''scrap provider'', ''shredded motor vehicle scrap'', ''specialty metal scrap'', and ''steel scrap''.

The additions and revision read as follows:

§ 63.7852 What definitions apply to this subpart?

* * * * *

Basic oxygen process furnace group means the collection of BOPF shop steelmaking operating units and their control devices including the BOPF primary emission control system, BOPF secondary control system, ladle metallurgy units, and hot metal transfer, desulfurization and slag skimming units that are operating at the time of each mercury test sequence. In the case of duplicate units in the BOPF Group, the BOPF Group for purposes of this rule means only those units operating at the time of the test sequence. See related definitions in this section for ''primary emissions,'' ''primary emission control system,'' ''secondary emissions,'' and ''secondary emission control system.''

* * * * *

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation (including operating limits), standard, or operation and maintenance requirement;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

* * * * *

Mercury switch means each mercury-containing capsule or switch assembly that is part of a convenience light switch mechanism installed in a motor vehicle.

Motor vehicle means an automotive vehicle not operated on rails and usually operated with rubber tires for use on roads and highways.

Motor vehicle scrap means post-consumer scrap from discarded automotive vehicles, in whole or in part, including automobile body hulks that have been processed through a shredder. Motor vehicle scrap does not include automobile manufacturing bundles or miscellaneous vehicle parts, such as wheels and bumpers, which do not contain mercury switches.

Opening means any roof monitor, vent, door, window, hole, crack or other conduit that allows gas to escape to the atmosphere from a blast furnace casthouse or BOPF shop.

Post-consumer steel scrap means steel scrap that is composed of materials made of steel that were purchased by households or by commercial, industrial, and institutional facilities in their role as end-users of the product and which can no longer be used for its intended purpose.

Pre-consumer steel scrap means steel scrap that is left over from industrial or manufacturing processes and which is subsequently recycled as scrap. Other terms used to describe this scrap are new, home, run-around, prompt-industrial, and return scrap.

* * * * *

Scrap provider means the company or person (including a broker) who contracts directly with an integrated iron and steel manufacturing facility to provide steel scrap. Scrap processors, such as shredder operators or vehicle dismantlers, who do not sell scrap directly to an integrated iron and steel manufacturing facility are not scrap providers.

* * * * *

Shredded motor vehicle scrap means post-consumer scrap from discarded automotive vehicles that has been processed through a shredder.

* * * * *

Specialty metal scrap means scrap where the only materials from motor vehicles in the scrap are materials (such as certain exhaust systems) recovered for their specialty alloy content (including, but not limited to, chromium, nickel, molybdenum, or other alloys), and, based on the nature of the scrap and purchase specifications, the scrap is not expected to contain mercury switches.

* * * * *

Steel scrap means pre-consumer and post-consumer discarded steel that is processed by scrap providers for resale (post-consumer) or used on-site (pre-consumer or run-around scrap from within a facility or company). Post-consumer steel scrap may or may not

contain motor vehicle scrap, depending on the type of scrap.

* * * * *

■ 22. Table 1 to Subpart FFFFF of Part 63 is revised to read as follows:

As required in § 63.7790(a), you must comply with each applicable emission and opacity limit in the following table:

TABLE 1 TO SUBPART FFFFF OF PART 63—EMISSION AND OPACITY LIMITS

For . . .	You must comply with each of the following . . .
1. Each windbox exhaust stream at an existing sinter plant.	You must not cause to be discharged to the atmosphere any gases that contain particulate matter in excess of 0.4 lb/ton of product sinter.
2. Each windbox exhaust stream at a new sinter plant.	You must not cause to be discharged to the atmosphere any gases that contain particulate matter in excess of 0.3 lb/ton of product sinter.
3. Each discharge end at an existing sinter plant.	a. You must not cause to be discharged to the atmosphere any gases that exit from one or more control devices that contain, on a flow-weighted basis, particulate matter in excess of 0.02 gr/dscf [1] [2]; and b. You must not cause to be discharged to the atmosphere any secondary emissions that exit any opening in the building or structure housing the discharge end that exhibit opacity greater than 20 percent (6-minute average).
4. Each discharge end at a new sinter plant.	a. You must not cause to be discharged to the atmosphere any gases that exit from one or more control devices that contain, on a flow weighted basis, particulate matter in excess of 0.01 gr/dscf; and b. You must not cause to be discharged to the atmosphere any secondary emissions that exit any opening in the building or structure housing the discharge end that exhibit opacity greater than 10 percent (6-minute average).
5. Each sinter cooler at an existing sinter plant.	You must not cause to be discharged to the atmosphere any emissions that exhibit opacity greater than 10 percent (6-minute average).
6. Each sinter cooler at a new sinter plant.	You must not cause to be discharged to the atmosphere any gases that contain particulate matter in excess of 0.01 gr/dscf.
7. Each casthouse at an existing blast furnace.	a. You must not cause to be discharged to the atmosphere any gases that exit from a control device that contain particulate matter in excess of 0.01 gr/dscf [2]; and b. You must not cause to be discharged to the atmosphere any secondary emissions that exit all openings in the casthouse or structure housing the blast furnace that exhibit opacity greater than 20 percent (6-minute average).
8. Each casthouse at a new blast furnace.	a. You must not cause to be discharged to the atmosphere any gases that exit from a control device that contain particulate matter in excess of 0.003 gr/dscf; and b. You must not cause to be discharged to the atmosphere any secondary emissions that exit all openings in the casthouse or structure housing the blast furnace that exhibit opacity greater than 15 percent (6-minute average).
9. Each BOPF at a new or existing shop.	a. You must not cause to be discharged to the atmosphere any gases that exit from a primary emission control system for a BOPF with a closed hood system at a new or existing BOPF shop that contain, on a flow-weighted basis, particulate matter in excess of 0.03 gr/dscf during the primary oxygen blow [2] [3]; and b. You must not cause to be discharged to the atmosphere any gases that exit from a primary emission control system for a BOPF with an open hood system that contain, on a flow-weighted basis, particulate matter in excess of 0.02 gr/dscf during the steel production cycle for an existing BOPF shop [2] [3] or 0.01 gr/dscf during the steel production cycle for a new BOPF shop [3]; and c. You must not cause to be discharged to the atmosphere any gases that exit from a control device used solely for the collection of secondary emissions from the BOPF that contain particulate matter in excess of 0.01 gr/dscf for an existing BOPF shop [2] or 0.0052 gr/dscf for a new BOPF shop.
10. Each hot metal transfer, skimming, and desulfurization operation at a new or existing BOPF shop.	You must not cause to be discharged to the atmosphere any gases that exit from a control device that contain particulate matter in excess of 0.01 gr/dscf for an existing BOPF shop [2] or 0.003 gr/dscf for a new BOPF shop.
11. Each ladle metallurgy operation at a new or existing BOPF shop.	You must not cause to be discharged to the atmosphere any gases that exit from a control device that contain particulate matter in excess of 0.01 gr/dscf for an existing BOPF shop [2] or 0.004 gr/dscf for a new BOPF shop.
12. Each existing BOPF shop.	You must not cause to be discharged to the atmosphere any secondary emissions that exit any opening in the BOPF shop or any other building housing the BOPF or BOPF shop operation that exhibit opacity greater than 20 percent (3-minute average).
13. Each new BOPF shop ...	a. You must not cause to be discharged to the atmosphere any secondary emissions that exit any opening in the BOPF shop or other building housing a bottom-blown BOPF or BOPF shop operations that exhibit opacity (for any set of 6-minute averages) greater than 10 percent, except that one 6-minute period not to exceed 20 percent may occur once per steel production cycle; or b. You must not cause to be discharged to the atmosphere any secondary emissions that exit any opening in the BOPF shop or other building housing a top-blown BOPF or BOPF shop operations that exhibit opacity (for any set of 3-minute averages) greater than 10 percent, except that one 3-minute period greater than 10 percent but less than 20 percent may occur once per steel production cycle.
14. Each BOPF Group at an existing BOPF shop.	You must not cause to be discharged to the atmosphere any gases that exit from the collection of BOPF Group control devices that contain mercury in excess of 0.00026 lb/ton of steel scrap input to the BOPF.
15. Each BOPF Group at a new BOPF shop.	You must not cause to be discharged to the atmosphere any gases that exit from the collection of BOPF Group control devices that contain mercury in excess of 0.000081 lb/ton of steel scrap input to the BOPF.

[1] This limit applies if the cooler is vented to the same control device as the discharge end.

[2] This concentration limit (gr/dscf) for a control device does not apply to discharges inside a building or structure housing the discharge end at an existing sinter plant, inside a casthouse at an existing blast furnace, or inside an existing BOPF shop if the control device was installed before August 30, 2005.

[3] This limit applies to control devices operated in parallel for a single BOPF during the oxygen blow.

■ 23. Table 2 to Subpart FFFFF of Part 63 is revised to read as follows:

As required in § 63.7826(a)(1), you must demonstrate initial compliance with the emission and opacity limits according to the following table:

TABLE 2 TO SUBPART FFFFF OF PART 63—INITIAL COMPLIANCE WITH EMISSION AND OPACITY LIMITS

For . . .	You have demonstrated initial compliance if . . .
1. Each windbox exhaust stream at an existing sinter plant.	The process-weighted mass rate of particulate matter from a windbox exhaust stream, measured according to the performance test procedures in § 63.7822(c), did not exceed 0.4 lb/ton of product sinter.
2. Each windbox exhaust stream at a new sinter plant.	The process-weighted mass rate of particulate matter from a windbox exhaust stream, measured according to the performance test procedures in § 63.7822(c), did not exceed 0.3 lb/ton of product sinter.
3. Each discharge end at an existing sinter plant.	a. The flow-weighted average concentration of particulate matter from one or more control devices applied to emissions from a discharge end, measured according to the performance test procedures in § 63.7822(d), did not exceed 0.02 gr/dscf; and b. The opacity of secondary emissions from each discharge end, determined according to the performance test procedures in § 63.7823(c), did not exceed 20 percent (6-minute average).
4. Each discharge end at a new sinter plant.	a. The flow-weighted average concentration of particulate matter from one or more control devices applied to emissions from a discharge end, measured according to the performance test procedures in § 63.7822(d), did not exceed 0.01 gr/dscf; and b. The opacity of secondary emissions from each discharge end, determined according to the performance test procedures in § 63.7823(c), did not exceed 10 percent (6-minute average).
5. Each sinter cooler at an existing sinter plant.	The opacity of emissions, determined according to the performance test procedures in § 63.7823(e), did not exceed 10 percent (6-minute average).
6. Each sinter cooler at a new sinter plant.	The average concentration of particulate matter, measured according to the performance test procedures in § 63.7822(b), did not exceed 0.01 gr/dscf.
7. Each casthouse at an existing blast furnace.	a. The average concentration of particulate matter from a control device applied to emissions from a casthouse, measured according to the performance test procedures in § 63.7822(e), did not exceed 0.01 gr/dscf; and b. The opacity of secondary emissions from each casthouse, determined according to the performance test procedures in § 63.7823(c), did not exceed 20 percent (6-minute average).
8. Each casthouse at a new blast furnace.	a. The average concentration of particulate matter from a control device applied to emissions from a casthouse, measured according to the performance test procedures in § 63.7822(e), did not exceed 0.003 gr/dscf; and b. The opacity of secondary emissions from each casthouse, determined according to the performance test procedures in § 63.7823(c), did not exceed 15 percent (6-minute average).
9. Each BOPF at a new or existing BOPF shop.	a. The average concentration of particulate matter from a primary emission control system applied to emissions from a BOPF with a closed hood system, measured according to the performance test procedures in § 63.7822(f), did not exceed 0.03 gr/dscf for a new or existing BOPF shop; b. The average concentration of particulate matter from a primary emission control system applied to emissions from a BOPF with an open hood system, measured according to the performance test procedures in § 63.7822(g), did not exceed 0.02 gr/dscf for an existing BOPF shop or 0.01 gr/dscf for a new BOPF shop; and c. The average concentration of particulate matter from a control device applied solely to secondary emissions from a BOPF, measured according to the performance test procedures in § 63.7822(g), did not exceed 0.01 gr/dscf for an existing BOPF shop or 0.0052 gr/dscf for a new BOPF shop.
10. Each hot metal transfer skimming, and desulfurization at a new or existing BOPF shop.	The average concentration of particulate matter from a control device applied to emissions from hot metal transfer, skimming, or desulfurization, measured according to the performance test procedures in § 63.7822(h), did not exceed 0.01 gr/dscf for an existing BOPF shop or 0.003 gr/dscf for a new BOPF shop.
11. Each ladle metallurgy operation at a new or existing BOPF shop.	The average concentration of particulate matter from a control device applied to emissions from a ladle metallurgy operation, measured according to the performance test procedures in § 63.7822(h), did not exceed 0.01 gr/dscf for an existing BOPF shop or 0.004 gr/dscf for a new BOPF shop.
12. Each existing BOPF shop.	The opacity of secondary emissions from each BOPF shop, determined according to the performance test procedures in § 63.7823(d), did not exceed 20 percent (3-minute average).
13. Each new BOPF shop ...	a. The opacity of the highest set of 6-minute averages from each BOPF shop housing a bottom-blown BOPF, determined according to the performance test procedures in § 63.7823(d), did not exceed 20 percent and the second highest set of 6-minute averages did not exceed 10 percent; or b. The opacity of the highest set of 3-minute averages from each BOPF shop housing a top-blown BOPF, determined according to the performance test procedures in § 63.7823(d), did not exceed 20 percent and the second highest set of 3-minute averages did not exceed 10 percent.
14. Each BOPF Group at an existing BOPF shop.	If demonstrating compliance through performance testing, the average emissions of mercury from the collection of BOPF Group control devices applied to the emissions from the BOPF Group, measured according to the performance test procedures in § 63.7825, did not exceed 0.00026 lb/ton steel scrap input to the BOPF.
15. Each BOPF Group at a new BOPF shop.	If demonstrating compliance through performance testing, the average emissions of mercury from the collection of BOPF Group control devices applied to the emissions from the BOPF Group, measured according to the performance test procedures in § 63.7825, did not exceed 0.000081 lb/ton steel scrap input to the BOPF.

■ 24. Table 3 to Subpart FFFFF of Part 63 is revised to read as follows:

As required in § 63.7833(a), you must demonstrate continuous compliance with the emission and opacity limits according to the following table:

TABLE 3 TO SUBPART FFFFF OF PART 63—CONTINUOUS COMPLIANCE WITH EMISSION AND OPACITY LIMITS

For . . .	You must demonstrate continuous compliance by . . .
1. Each windbox exhaust stream at an existing sinter plant.	a. Maintaining emissions of particulate matter at or below 0.4 lb/ton of product sinter; and
	b. Conducting subsequent performance tests at the frequencies specified in § 63.7821.
2. Each windbox exhaust stream at a new sinter plant.	a. Maintaining emissions of particulate matter at or below 0.3 lb/ton of product sinter; and
	b. Conducting subsequent performance tests at the frequencies specified in § 63.7821.
3. Each discharge end at an existing sinter plant.	a. Maintaining emissions of particulate matter from one or more control devices at or below 0.02 gr/dscf; and
	b. Maintaining the opacity of secondary emissions that exit any opening in the building or structure housing the discharge end at or below 20 percent (6-minute average); and
	c. Conducting subsequent performance tests at the frequencies specified in § 63.7821.
4. Each discharge end at a new sinter plant.	a. Maintaining emissions of particulate matter from one or more control devices at or below 0.01 gr/dscf; and
	b. Maintaining the opacity of secondary emissions that exit any opening in the building or structure housing the discharge end at or below 10 percent (6-minute average); and
	c. Conducting subsequent performance tests at the frequencies specified in § 63.7821.
5. Each sinter cooler at an existing sinter plant.	a. Maintaining the opacity of emissions that exit any sinter cooler at or below 10 percent (6-minute average); and
	b. Conducting subsequent performance tests at the frequencies specified in § 63.7821.
6. Each sinter cooler at a new sinter plant.	a. Maintaining emissions of particulate matter at or below 0.1 gr/dscf; and
	b. Conducting subsequent performance tests at the frequencies specified in § 63.7821.
7. Each casthouse at an existing blast furnace.	a. Maintaining emissions of particulate matter from a control device at or below 0.01 gr/dscf; and
	b. Maintaining the opacity of secondary emissions that exit all openings in the casthouse or structure housing the casthouse at or below 20 percent (6-minute average); and
	c. Conducting subsequent performance tests at the frequencies specified in § 63.7821.
8. Each casthouse at a new blast furnace.	a. Maintaining emissions of particulate matter from a control device at or below 0.003 gr/dscf; and
	b. Maintaining the opacity of secondary emissions that exit all openings in the casthouse or structure housing the casthouse at or below 15 percent (6-minute average); and
	c. Conducting subsequent performance tests at the frequencies specified in § 63.7821.
9. Each BOPF at a new or existing BOPF shop.	a. Maintaining emissions of particulate matter from the primary control system for a BOPF with a closed hood system at or below 0.03 gr/dscf; and
	b. Maintaining emissions of particulate matter from the primary control system for a BOPF with an open hood system at or below 0.02 gr/dscf for an existing BOPF shop or 0.01 gr/dscf for a new BOPF shop; and
	c. Maintaining emissions of particulate matter from a control device applied solely to secondary emissions from a BOPF at or below 0.01 gr/dscf for an existing BOPF shop or 0.0052 gr/dscf for a new BOPF shop; and
	d. Conducting subsequent performance tests at the frequencies specified in § 63.7821.
10. Each hot metal transfer, skimming, and desulfurization operation at a new or existing BOPF shop.	a. Maintaining emissions of particulate matter from a control device at or below 0.01 gr/dscf at an existing BOPF or 0.003 gr/dscf for a new BOPF; and
	b. Conducting subsequent performance tests at the frequencies specified in § 63.7821.
11. Each ladle metallurgy operation at a new or existing BOPF shop.	a. Maintaining emissions of particulate matter from a control device at or below 0.01 gr/dscf at an existing BOPF shop or 0.004 gr/dscf for a new BOPF shop; and
	b. Conducting subsequent performance tests at the frequencies specified in § 63.7821.
12. Each existing BOPF shop.	a. Maintaining the opacity of secondary emissions that exit any opening in the BOPF shop or other building housing the BOPF shop or shop operation at or below 20 percent (3-minute average); and
	b. Conducting subsequent performance tests at the frequencies specified in § 63.7821.
13. Each new BOPF shop ...	a. Maintaining the opacity (for any set of 6-minute averages) of secondary emissions that exit any opening in the BOPF shop or other building housing a bottom-blown BOPF or shop operation at or below 10 percent, except that one 6-minute period greater than 10 percent but no more than 20 percent may occur once per steel production cycle; and
	b. Maintaining the opacity (for any set of 3-minute averages) of secondary emissions that exit any opening in the BOPF shop or other building housing a top-blown BOPF or shop operation at or below 10 percent, except that one 3-minute period greater than 10 percent but less than 20 percent may occur once per steel production cycle; and
	c. Conducting subsequent performance tests at the frequencies specified in § 63.7821.
14. Each BOPF Group at an existing BOPF shop.	a. Maintaining emissions of mercury from the collection of BOPF Group control devices at or below 0.00026 lb/ton steel scrap input to the BOPF; and
	b. If demonstrating compliance through performance testing, conducting subsequent performance tests at the frequencies specified in § 63.7821; and
	c. If demonstrating compliance through § 63.7791(c), (d), or (e), maintaining records pursuant to § 63.7842(e).
15. Each BOPF Group at a new BOPF shop.	a. Maintaining emissions of mercury from the collection of BOPF Group control devices at or below 0.000081 lb/ton steel scrap input to the BOPF; and
	b. If demonstrating compliance through performance testing, conducting subsequent performance tests at the frequencies specified in § 63.7821; and

TABLE 3 TO SUBPART FFFFF OF PART 63—CONTINUOUS COMPLIANCE WITH EMISSION AND OPACITY LIMITS—Continued

For . . .	You must demonstrate continuous compliance by . . .
	c. If demonstrating compliance through § 63.7791(c), (d), or (e), maintaining records pursuant to § 63.7842(e).

■ 25. Table 4 to Subpart FFFFF of Part 63 is revised to read as follows:

As required in § 63.7850, you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) shown in the following table:

TABLE 4 TO SUBPART FFFFF OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART FFFFF

Citation	Subject	Applies to Subpart FFFFF	Explanation
§ 63.1	Applicability	Yes	
§ 63.2	Definitions	Yes	
§ 63.3	Units and Abbreviations	Yes	
§ 63.4	Prohibited Activities	Yes	
§ 63.5	Construction/Reconstruction	Yes	
§ 63.6(a), (b), (c), (d), (e)(1)(iii), (f)(2)–(3), (g), (h)(2)(ii)–(h)(9).	Compliance with Standards and Maintenance Requirements.	Yes	
§ 63.6(e)(1)(i)	General Duty to Minimize Emissions.	No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes on or before January 11, 2021 and No thereafter.	See § 63.7810(d) for general duty requirement.
§ 63.6(e)(1)(ii)	Requirement to Correct Malfunctions ASAP.	No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes, on or before January 11, 2021 and No thereafter.	
§ 63.6(e)(3)	SSM Plan Requirements	No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes on or before January 11, 2021 and No thereafter.	See § 63.7810(c)
§ 63.6(f)(1)	Compliance except during SSM	No	See § 63.7810(a).
§ 63.6(h)(1)	Compliance except during SSM	No	See § 63.7810(a).
§ 63.6(h)(2)(i)	Determining Compliance with Opacity and VE Standards.	No	Subpart FFFFF specifies methods and procedures for determining compliance with opacity emission and operating limits.
§ 63.6(i)	Extension of Compliance with Emission Standards.	Yes	
§ 63.6(j)	Exemption from Compliance with Emission Standards.	Yes	
§ 63.7(a)(1)–(2)	Applicability and Performance Test Dates.	No	Subpart FFFFF and specifies performance test applicability and dates.
§ 63.7(a)(3), (b)–(d), (e)(2)–(4), (f)–(h).	Performance Testing Requirements.	Yes	
§ 63.7(e)(1)	Performance Testing	No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes on or before January 11, 2021 and No thereafter.	See §§ 63.7822(a), 63.7823(a), and 63.7825(a).
§ 63.8(a)(1)–(3), (b), (c)(1)(ii), (c)(2)–(3), (c)(4)(i)–(ii), (c)(5)–(6), (c)(7)–(8), (d)(1)–(2), (e), (f)(1)–(5), (g)(1)–(4).	Monitoring Requirements	Yes	CMS requirements in § 63.8(c)(4)(i)–(ii), (c)(5)–(6), (d)(1)–(2), and (e) apply only to COMS.
§ 63.8(a)(4)	Additional Monitoring Requirements for Control Devices in § 63.11.	No	Subpart FFFFF does not require flares.

TABLE 4 TO SUBPART FFFFF OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART FFFFF—Continued

Citation	Subject	Applies to Subpart FFFFF	Explanation
§ 63.8(c)(1)(i)	General Duty to Minimize Emissions and CMS Operation.	No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes on or before January 11, 2021 and No thereafter.	
§ 63.8(c)(1)(iii)	Requirement to Develop SSM Plan for CMS.	No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes on or before January 11, 2021 and No thereafter.	
§ 63.8(c)(4)	Continuous Monitoring System Requirements.	No	Subpart FFFFF specifies requirements for operation of CMS.
§ 63.8(d)(3)	Written procedures for CMS	No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes on or before January 11, 2021 and No thereafter.	See § 63.7842(b)(3).
§ 63.8(f)(6)	RATA Alternative	No	
§ 63.8(g)(5)	Data Reduction	No	Subpart FFFFF specifies data reduction requirements.
§ 63.9	Notification Requirements	Yes	Additional notifications for CMS in § 63.9(g) apply only to COMS.
§ 63.10(a), (b)(1), (b)(2)(x), (b)(2)(xiv), (b)(3), (c)(1)–(6), (c)(9)–(14), (d)(1)–(4), (e)(1)–(2), (e)(4), (f).	Recordkeeping and Reporting Requirements.	Yes	Additional records for CMS in § 63.10(c)(1)–(6), (9)–(14), and reports in § 63.10(d)(1)–(2) apply only to COMS.
§ 63.10(b)(2)(i)	Recordkeeping of Occurrence and Duration of Startups and Shutdowns.	No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes on or before January 11, 2021 and No thereafter.	
§ 63.10(b)(2)(ii)	Recordkeeping of Failures to Meet a Standard.	No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes on or before January 11, 2021 and No thereafter.	See § 63.7842(a)(2)–(4) for recordkeeping of (1) date, time, and duration of failure to meet the standard; (2) listing of affected source or equipment, and an estimate of the quantity of each regulated pollutant emitted over the standard; and (3) actions to minimize emissions and correct the failure.
§ 63.10(b)(2)(iii)	Maintenance Records	Yes	
§ 63.10(b)(2)(iv)	Actions Taken to Minimize Emissions During SSM.	No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes on or before January 11, 2021 and No thereafter.	See § 63.7842(a)(4) for records of actions taken to minimize emissions.
§ 63.10(b)(2)(v)	Actions Taken to Minimize Emissions During SSM.	No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes on or before January 11, 2021 and No thereafter.	See § 63.7842(a)(4) for records of actions taken to minimize emissions.
§ 63.10(b)(2)(vi)	Recordkeeping for CMS Malfunctions.	Yes	
§ 63.10(b)(2)(vii)–(ix)	Other CMS Requirements	Yes	
§ 63.10(b)(2)(xiii)	CMS Records for RATA Alternative.	No	

TABLE 4 TO SUBPART FFFFF OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART FFFFF—Continued

Citation	Subject	Applies to Subpart FFFFF	Explanation
§ 63.10(c)(7)–(8)	Records of Excess Emissions and Parameter Monitoring Exceedances for CMS.	No	Subpart FFFFF specifies record requirements; see § 63.7842.
§ 63.10(c)(15)	Use of SSM Plan	No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes on or before January 11, 2021 and No thereafter.	
§ 63.10(d)(5)(i)	Periodic SSM Reports	No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes on or before January 11, 2021 and No thereafter.	See § 63.7841(b)(4) for malfunction reporting requirements.
§ 63.10(d)(5)(ii)	Immediate SSM Reports	No, for new or reconstructed sources which commenced construction or reconstruction after August 16, 2019. For all other affected sources, Yes on or before January 11, 2021 and No thereafter.	
§ 63.10(e)(3)	Excess Emission Reports	No	Subpart FFFFF specifies reporting requirements; see § 63.7841.
§ 63.11	Control Device Requirements	No	Subpart FFFFF does not require flares.
§ 63.12	State Authority and Delegations	Yes	
§ 63.13–§ 63.16	Addresses, Incorporations by Reference, Availability of Information and Confidentiality, Performance Track Provisions.	Yes	

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