

The EPA Administrator, Michael S. Regan, signed the following notice on 01/31/2024, and EPA is submitting it for publication in the *Federal Register* (FR). While we have taken steps to ensure the accuracy of this Internet version of the rule, it is not the official version of the rule for purposes of compliance. Please refer to the official version in a forthcoming FR publication, which will appear on the Government Printing Office's govinfo website (<https://www.govinfo.gov/app/collection/fr>) and on Regulations.gov (<https://www.regulations.gov>) in Docket No. EPA-HQ-OAR-2017-0664. Once the official version of this document is published in the FR, this version will be removed from the Internet and replaced with a link to the official version.

6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA-HQ-OAR-2017-0664; FRL-5925.1-01-OAR]

RIN 2060-AV58

National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The U.S. Environmental Protection Agency (EPA) is finalizing amendments to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Taconite Iron Ore Processing. Specifically, the EPA is finalizing maximum achievable control technology (MACT) standards for mercury (Hg) and establishing revised emission standards for hydrogen chloride (HCl) and hydrogen fluoride (HF). This final action ensures that emissions of all hazardous air pollutants (HAP) emitted from the Taconite Iron Ore Processing source category are regulated.

DATES: This final rule is effective **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. The incorporation by reference (IBR) of certain publications listed in the rule is approved by the Director of the Federal Register (FR) as of **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. The incorporation by reference of certain other material listed in the rule was approved by the Director of the Federal Register as of October 26, 2020.

ADDRESSES: The EPA established a docket for this action under Docket ID No. EPA–HQ–OAR–2017–0664. 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 (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and is publicly available only in hard copy. With the exception of such material, publicly available docket materials are available electronically in <https://www.regulations.gov/> or in hard copy at the EPA Docket Center, Room 3334, WJC West Building, 1301 Constitution Avenue NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the EPA Docket Center is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: For questions about this final action, contact David Putney, Sector Policies and Programs Division (D243–02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, 109 T.W. Alexander Drive, P.O. Box 12055, Research Triangle Park, North Carolina, 27711; telephone number: (919) 541–2016; email address: putney.david@epa.gov.

SUPPLEMENTARY INFORMATION:

Preamble acronyms and abbreviations. Throughout this document the use of “we,” “us,” or “our” is intended to refer to the EPA. 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 |
| BTF | beyond-the-floor |
| CAA | Clean Air Act |

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|--------------------|--|
| CBI | Confidential Business Information |
| CEMS | continuous emission monitoring system |
| CFR | Code of Federal Regulations |
| D.C. Circuit | United States Court of Appeals for the District of Columbia Circuit |
| DSI | dry sorbent injection |
| EJ | environmental justice |
| EPA | Environmental Protection Agency |
| ESP | electrostatic precipitator |
| FR | <i>Federal Register</i> |
| HAP | hazardous air pollutant(s) |
| HCl | hydrochloric acid |
| HF | hydrogen fluoride |
| Hg | mercury |
| ICR | information collection request |
| km | kilometer |
| LEAN | Louisiana Environmental Action Network |
| lb/LT | pounds of HAP (<i>i.e.</i> , Hg, HCl, or HF) emitted per long ton of pellets produced |
| MACT | maximum achievable control technology |
| MWh/yr | megawatt-hours per year |
| MPCA | Minnesota Pollution Control Agency |
| NAICS | North American Industry Classification System |
| NESHAP | National Emission Standards for Hazardous Air Pollutants |
| ng/g | nanograms per gram |
| NTTAA | National Technology Transfer and Advancement Act |
| OAQPS | Office of Air Quality Planning and Standards |
| OMB | Office of Management and Budget |
| PM | particulate matter |
| PRA | Paperwork Reduction Act |
| RFA | Regulatory Flexibility Act |
| RTR | residual risk and technology review |
| tpy | tons per year |
| UPL | upper prediction limit |
| µg/Nm ³ | microgram per normal cubic meter |
| UMRA | Unfunded Mandates Reform Act |
| VCS | voluntary consensus standards |

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

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- F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
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I. General Information

A. Does this action apply to me?

Table 1 of this preamble lists the NESHAP and associated regulated industrial source category that is the subject of this final rule. Table 1 is not intended to be exhaustive, but rather provides a guide for readers regarding the entities that this final action is likely to affect. The final standards are directly applicable to the affected sources. Federal, state, local, and Tribal

government entities are not affected by this final action. As defined in the *Initial List of Categories of Sources Under Section 112(c)(1) of the Clean Air Act Amendments of 1990* (see 57 FR 31576; July 16, 1992) and *Documentation for Developing the Initial Source Category List, Final Report* (see EPA-450/3-91-030; July 1992), the Taconite Iron Ore Processing source category includes any facility engaged in separating and concentrating iron ore from taconite, a low-grade iron ore to produce taconite pellets. The source category includes, but is not limited to, the following processes: liberation of the iron ore by wet or dry crushing and grinding in gyratory crushers, cone crushers, rod mills, and ball mills; pelletizing by wet tumbling with a balling drum or balling disc; induration using a straight grate or grate kiln indurating furnace; and finished pellet handling.

Table 1–NESHAP and Source Categories Affected by this Final Action

| Source Category | NESHAP | NAICS Code ¹ |
|------------------------------|-------------------------------|-------------------------|
| Taconite Iron Ore Processing | 40 CFR part 63, subpart RRRRR | 21221 |

¹ North American Industry Classification System.

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 action is 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/taconite-iron-ore-processing-national-emission-standards-hazardous>. Following publication in the *Federal Register*, the EPA will post the *Federal Register* version of the final rule and key technical documents at this same website.

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 (D.C. Circuit) by **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. 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?

In the *Louisiana Environmental Action Network v. EPA* (“LEAN”) decision issued on April 21, 2020, the D.C. Circuit held that the EPA has an obligation to address regulatory gaps,

such as missing standards for HAP known to be emitted from a major source category, when the Agency conducts the 8-year technology review required by CAA section 112(d)(6).¹ Emissions data collected from the exhaust stacks of existing taconite indurating furnaces indicate that Hg is emitted from the source category. However, Hg emissions from the Taconite Iron Ore Processing source category are not regulated under the existing Taconite Iron Ore Processing NESHAP. To meet the EPA's obligations under CAA section 112(d)(6), in this action, the EPA is establishing new standards for Hg emissions from the Taconite Iron Ore Processing source category that reflect MACT for Hg emitted from taconite indurating furnaces, pursuant to CAA sections 112(d)(2) and (3).

The EPA is also finalizing revised standards for HCl and HF pursuant to CAA section 112(d)(6). CAA section 112(d)(6) requires the EPA to review standards promulgated under CAA section 112 and revise them "as necessary (taking into account developments in practices, processes, and control technologies)" no less often than every 8 years.

B. What is the source category and how does the current NESHAP regulate its HAP emissions?

The Taconite Iron Ore Processing NESHAP (codified at 40 Code of Federal Regulations (CFR) part 63, subpart RRRRR) applies to each new or existing ore crushing and handling operation, ore dryer, pellet indurating furnace, and finished pellet handling operation at a taconite iron ore processing plant that is (or is part of) a major source of HAP emissions. Taconite iron ore processing plants separate and concentrate iron ore from taconite, a low-grade iron ore containing 20- to 25-percent iron, and produce taconite pellets, which are 60- to 65-percent iron. The current NESHAP includes particulate matter (PM) limits that, prior to this final action,

¹ *Louisiana Environmental Action Network v. EPA*, 955 F.3d 1088 (D.C. Cir. 2020) ("LEAN").

served as a surrogate for particulate metal HAP, HCl, and HF emissions. The existing PM emissions limits were summarized in table 2 of the proposal (see 88 FR 30917; May 15, 2023). The current NESHAP does not presently include standards for Hg emissions.

There are currently eight taconite iron ore processing plants in the United States: six plants are located in Minnesota and two are located in Michigan. This includes the Empire Mining facility in Michigan, which maintains an air quality permit to operate, but has been indefinitely idled since 2016 and is therefore not included in any analyses (*e.g.*, estimates of emissions or cost impacts) associated with this final rulemaking.

C. What changes did we propose for the Taconite Iron Ore Processing source category?

On May 15, 2023, the EPA published a proposal in the *Federal Register* to set MACT standards for Hg emissions from indurating furnaces in the source category and to revise the existing emission standards for HCl and HF for indurating furnaces. The PM emission limits in the current NESHAP will continue to serve as surrogate for particulate metal HAP (*e.g.*, nickel and arsenic). The EPA proposed that compliance with the emission standards for Hg, HCl, and HF be demonstrated through operating limits, monitoring, and performance testing. We also proposed minor changes to the electronic reporting requirements found in 40 CFR 63.9641(c) and 40 CFR 63.9641(f)(3) to reflect new procedures for reporting CBI that included an email address for owners and operators to electronically submit compliance reports containing CBI to the Office of Air Quality Planning and Standards (OAQPS) CBI Office. Finally, we requested comment on our evaluation that the addition of 1-bromopropane (1-BP) to the CAA section 112 HAP list would not impact the Taconite Iron Ore Processing NESHAP because, based on our knowledge of the source category and available emissions data, 1-BP is not emitted from this source category.

III. What is the rationale for our final decisions and amendments for the Taconite Iron Ore Processing source category?

For each issue, this section provides a description of what we proposed and what we are finalizing, a summary of key comments and responses, and the EPA's rationale for the final decisions and amendments. For all comments not discussed in this preamble, comment summaries and the EPA's responses can be found in the document, *Summary of Public Comments and Responses for Proposed Amendments to the National Emission Standards for Hazardous Air Pollutants for Taconite Iron Ore Processing*, which is available in the docket for this action.

A. MACT Standards for Mercury

1. What did we propose for the Taconite Iron Ore Processing source category?

As described in the May 15, 2023, proposal (88 FR 30917), we proposed MACT standards for Hg for new and existing indurating furnaces that reflected the MACT floor level of control, based on the 99-percent upper prediction limit (UPL), of 1.4×10^{-5} pounds of Hg emitted per long ton of taconite pellets produced (lb/LT) for existing sources and 3.1×10^{-6} lb/LT for new sources. We also proposed an emissions averaging compliance alternative that would allow taconite iron ore processing facilities with more than one existing indurating furnace to comply with a Hg emissions limit of 1.26×10^{-5} lb/LT by averaging emissions on a production-weighted basis for two or more existing indurating furnaces located at the same facility. In the proposal, we explained that the emissions averaging compliance alternative reflected a 10 percent adjustment factor to the proposed MACT floor standard and that we expected this 10 percent adjustment factor would result in Hg reductions greater than those achieved by compliance with the MACT floor on a unit-by-unit basis. We proposed that

compliance with the Hg MACT standards would be demonstrated through initial and periodic performance testing (completed at least twice per 5-year permit term), establishing operating limits for each control device used to comply with the Hg standards, and installing and operating continuous parameter monitoring systems (CPMS) to ensure continuous compliance with the Hg standards.

For the proposal, in addition to calculating the MACT floor, pursuant to CAA section 112(d)(2), we also assessed more stringent “beyond-the-floor” (BTF) regulatory options for the Hg MACT standards. As discussed in the proposal (88 FR 30923), unlike the MACT floor’s minimum stringency requirements, the EPA must examine various impacts of the more stringent BTF regulatory options in determining whether MACT standards are to reflect BTF requirements. These impacts include the cost of achieving additional emissions reductions beyond those achieved by the MACT floor level of control, any non-air quality health and environmental impacts that would result from imposing controls BTF, and energy requirements of such BTF measures. If the EPA concludes that the more stringent regulatory options have unreasonable impacts, the EPA selects the MACT floor level of control as MACT. However, if the EPA concludes that impacts associated with BTF levels of control are reasonable in light of additional HAP emissions reductions achieved, then the EPA selects those BTF levels as MACT.

We considered BTF regulatory options that were 10, 20, 30, and 40 percent more stringent than the MACT floor and calculated the capital and annual costs as well as secondary impacts associated with each option. For a detailed discussion of our analysis of emissions reductions and potential secondary impacts developed for the proposal, please see the memorandum, *Development of Impacts for the Proposed Amendments to the NESHAP for Taconite Iron Ore Processing*, which is available in the docket for this action. We proposed that

requiring new or existing furnaces to meet BTF emission limits was not reasonable based on the estimated capital and operating costs and cost-effectiveness.

2. What comments did we receive on the proposed Hg MACT standards, and what are our responses?

Comment: Industry commenters provided data that they indicated corrected the Hg stack test data submitted in response to the CAA section 114 Information Collection Request (ICR) sent to the taconite facilities in 2022 for the Tilden, UTAC, Keetac, and Hibbing facilities that were used when calculating the baseline emissions, the MACT floor standards, and the emission reductions. The commenters indicated that the error in the Keetac emissions data resulted in an overestimate of both the baseline emissions and the estimated emission reductions that could be achieved if the proposed Hg standards were adopted.

Response: In response to these comments and revised data provided, the EPA reviewed the Hg emissions data that we used in the proposal to calculate baseline Hg emissions. At proposal we estimated total baseline Hg emissions were 1,010 pounds per year. The EPA confirmed that errors were present in the Hg emissions data used to calculate the baseline emissions. We revised the emissions data as appropriate based on the emissions data provided by industry commenters and recalculated the baseline emissions, MACT floor emission limits, emission reductions, and estimated capital and annual costs accordingly for the final rule. The updates to the emissions data did not impact the MACT floor limit for existing sources but did decrease the baseline emissions and the expected Hg emissions reductions for existing sources. The updates to the emissions data changed the Hg standard for new sources from 3.1×10^{-6} lb/LT to 2.6×10^{-6} lb/LT. The updated baseline Hg emissions for the final rule are estimated to be 751 pounds per year (0.38 tons per year (tpy)). We estimate that unit-by-unit compliance with the

final MACT floor limit will result in a reduction of 232 pounds of Hg emissions per year and a reduction of 247 pounds per year of Hg emissions if all facilities with more than one existing taconite furnace elect to demonstrate compliance through the emissions averaging compliance alternative. Our analysis is presented in detail in the memorandum, *Development of Impacts for the Final Amendments to the NESHAP for Taconite Iron Ore Processing*. The updated emissions data used in the revised calculations for the final rule are summarized in a separate memorandum, *Final Emissions Data Collected in 2022 for Indurating Furnaces Located at Taconite Iron Ore Processing Plants*. These documents are available in the docket for this action.

Comment: One commenter recommended the proposed limit for the emissions averaging compliance alternative for existing sources should have the same number of significant figures as the MACT floor limit. Instead of 1.26×10^{-5} lb/LT, the limit for the emissions averaging compliance alternative for existing sources would be rounded up to 1.3×10^{-5} lb/LT.

Response: The EPA agrees with the commenter that the Hg emission limit for the emissions averaging compliance option should have only two significant figures. The limit cannot have more significant figures than Hg MACT floor from which it was derived, which has only two significant figures. As recommended by commenters, the Hg emission limit in the final rule is revised to 1.3×10^{-5} lb/LT so that the limit for the emissions averaging compliance alternative has the same number of significant figures as the other Hg limits finalized in this rulemaking.

We estimate that the final Hg emissions averaging compliance alternative will reduce Hg emissions by 247 pounds per year, if Hibbing and Minntac elect to demonstrate compliance through the emissions averaging compliance alternative by each facility installing mercury

controls on two furnaces and averaging the emissions across all furnaces located at their facility. We expect that, should Hibbing and Minntac elect to demonstrate compliance through the emissions averaging compliance alternative, the Hg reductions would still be greater than the reductions we anticipate would be achieved through unit-by-unit compliance with the MACT floor level of control. For additional details, please refer to section IV.A.1 of the proposal preamble (88 FR 30925). More information on the final Hg standards, including the detailed cost estimates for the Hg emissions averaging compliance alternative, may be found in the memorandum, *Development of Impacts for the Final Amendments to the NESHAP for Taconite Iron Ore Processing*, which is available in the docket for this action.

Comment: Commenters recommended that the proposed 40 CFR 63.9621(d)(4) and 63.9631(j) be revised to allow the mass of taconite pellets produced to be determined indirectly through calculation based on industry standards. They noted that pellet mass is measured prior to offsite shipment and later “trued-up” at the end of each month.

Response: The EPA agrees that taconite pellet production can be determined indirectly through calculation using bulk density and volume measurements. We have revised the language in 40 CFR 63.9621(d)(4) and 63.9631(j) to allow the weight of taconite pellets produced to be determined either by direct measurement using weigh hoppers, belt weigh feeders, or weighed quantities in shipments, or calculated using the bulk density and volume measurements.

Comment: Industry commenters stated that the capital and operating costs for Hg controls were underestimated in the proposal and that the estimated capital costs were significantly below cost estimates developed by industry. The commenters thought the retrofit factor of 1.2 used by the EPA failed to adequately account for the additional costs incurred when retrofitting an existing emission unit with new controls. They recommended the EPA use the capital costs

prepared by industry and apply a retrofit factor of 1.5 or 1.6 with a contingency factor of 30 percent to account for the higher costs for retrofit projects. The commenters also stated that the total annual costs were underestimated because the EPA had underestimated costs for activated carbon, electricity, and waste disposal and used an interest rate that was too low. Industry commenters also stated that currently, some plants recycle iron particles collected by their particulate emission control device, but that the presence of activated carbon would create product quality issues and make recycling no longer possible. The commenters stated the EPA had not accounted for the loss of product and increased waste disposal costs in the cost estimates prepared for the proposal. The commenters provided cost estimates for the Keetac, Minorca, Minntac and UTAC facilities that included estimates of the amount of product they assert would be lost if scrubber solids are not recycled back through the process and the estimated price for the lost product. The commenters also disagreed with the estimated labor costs, arguing that both the number of operator hours and hourly labor rates were too low.

Response: For the final rule, the EPA has updated the capital and annual costs to reflect the costs in 2023 dollars using an interest rate of 8.5 percent and updated unit prices for activated carbon, utilities, and labor. The EPA also assessed the commenters concerns that ACI would prevent plants from recovering iron particles collected with other solids by their particulate emission control device. Based on the information provided by industry, ten indurating furnaces currently collect the solids from their particulate control devices and recycle the solids back to the production process, thereby recovering valuable iron product. Commenters said plants using ACI would not be able to continue to recover iron in this way because carbon would impact the quality of their product. Commenters said EPA should account for costs due to the loss of product and increased cost of waste disposal of the unrecoverable product. Industry provided

estimates of the amount of iron that would be lost for the furnaces located at the UTAC, Minorca, and Minntac plants. We used this data to estimate iron losses for the Hibbing plant and multiplied the estimated iron losses for each furnace by the current market price of iron to estimate the costs associated with the loss iron product. The updated cost estimates that we are using for the final rule, including the basis for the 8.5 percent interest rate, are documented in the memorandum, *Development of Impacts for the Final Amendments to the NESHAP for Taconite Iron Ore Processing*, which is available in the docket for this action.

The EPA reviewed the capital cost information submitted by industry during the comment period and found the information submitted consisted of a total capital cost for equipment. However, no breakdown was provided from which we could ascertain what was included in the cost and little information was provided on how the costs were derived. The lack of detail in the cost estimates combined with little supporting documentation made it impossible for the EPA to assess the accuracy of the cost estimates submitted by industry. Industry commenters indicated that the estimated equipment costs for the air pollution control equipment for the Minorca and UTAC facilities they submitted were estimated using cost data from another project at a different facility and scaled using the ‘rule of six-tenths. The ‘rule of six-tenths’ is a method by which equipment costs are estimated as the cost of a known project multiplied by a capacity factor raised to the power of six-tenths. The ‘rule of six-tenths’ can provide a reasonable order of magnitude estimate of equipment costs where the capacities of the two systems are reasonably similar. However, the commenters did not identify the facility or provide a detailed description of the project to which they are applying the rule of six-tenths. Commenters also failed to provide a detailed breakdown of the equipment costs used in the ‘rule of six-tenths’ estimate. Without additional information, the EPA was unable to assess the accuracy of the

equipment costs provided by commenters. Therefore, we are not making any changes based on this information.

We disagree with the commenters' recommendations that a retrofit factor of 1.5 or 1.6 should be applied to the capital costs with a 30-percent contingency factor. Retrofit factors account for costs directly related to the demolition, fabrication, and installation of the control system. For the venturi scrubbers we included the 3-percent contingency factor and applied a retrofit factor of 1.2 to the estimate of the total capital investment for new construction. The EPA's *Air Pollution Control Cost Manual* indicates a 3-percent contingency factor is considered appropriate for a mature air pollution control technology and states that retrofit costs are "generally minimal" for venturi scrubbers because of their small footprint.² While we agree with the commenters that retrofits may, in some cases, be more expensive than new construction, the 1.2 retrofit factor used in the cost estimates provides a reasonable increase to account for the higher cost associated with retrofit projects that involve replacing an existing venturi scrubber with a high-efficiency venturi scrubber, where infrastructure (e.g., water and power supply) already exist. The retrofit factor applied does not have a significant impact on the total annual costs. If a retrofit factor of 1.6 is applied, as recommended by the commenters, the total annual costs would increase by about 2 percent (less than \$2 million for replacing the venturi scrubbers on all 11 furnaces with mercury emissions currently exceeding the MACT floor. We did not apply a retrofit factor to the capital costs for the activated carbon injection (ACI) system because

² EPA's *Control Cost Manual* provides guidance for the development of capital and annual costs for air pollution control devices. The *Control Cost Manual* focuses on point source and stationary area source air pollution controls. A copy of the manual is available at <https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution>.

the costs were estimated using a methodology developed by Sargent & Lundy for the EPA's Integrated Planning Model (IPM).³ The IPM methodology is based on costs for retrofitting ACI on utility boilers and therefore already represents the average or typical costs for ACI retrofits.

A contingency factor is reserved for costs that could incur a reasonable but unanticipated increase but are not directly related to the demolition, fabrication, and installation of the system. Retrofit and contingency factors can be difficult to assess as they vary based on site-specific characteristics. Nevertheless, the EPA considers the methodology used to calculate capital and total annual costs to be a reasonable approach to estimating costs for the purposes of this rulemaking. We note that the EPA may not consider costs in determining the MACT floor, and that the cost estimates for the BTF control options identified for Hg emissions were determined to be greater than the level historically found to be cost-effective for controlling Hg emissions.

Comment: Industry commenters noted that the Hg concentrations in taconite ore deposits vary widely both within each mine and between mines, which in turn affects Hg emissions. The commenters said the primary source of Hg emissions from indurating furnaces is from the Hg contained in the greenballs (*i.e.*, unfired taconite iron ore pellets). The commenters provided Hg concentration data for greenballs from each taconite iron ore processing facility and recommended that the EPA revise the proposed Hg limits for new and existing furnaces to address the variability inherent in the Hg concentration of greenballs. They suggested the EPA use the data to develop a raw material variability factor that could be used when calculating the MACT floor limits for Hg. The commenters noted that the EPA had accounted for variability in

³ Sargent & Lundy, LLC, *IPM Model – Updates to Cost and Performance for APC Technologies Mercury Control Cost Development Methodology*, January 2017. A copy of this document is available at https://www.epa.gov/sites/default/files/2018-05/documents/attachment_5-6_hg_control_cost_development_methodology.pdf.

the Hg concentration of raw materials when calculating the MACT floor limits for other NESHAP.

Response: The EPA reviewed the Hg data submitted by industry and determined the data were not adequate for us to calculate a variability factor for use in deriving the MACT floor limits. This decision was based on several factors. First, the number of measurements submitted for each facility varied considerably - from as few as three measurements for the best performing furnace at Northshore (including two measurements on the same day) to as many as 948 measurements for the UTAC plant. The very limited data provided for Northshore is a concern because Northshore's stack test data showed that their furnace was the best performing (*i.e.*, had the lowest emissions of Hg). The data provided for Northshore are insufficient to evaluate temporal variability in the Hg content of the greenballs at Northshore because the data consist of measurements made during only two greenball sampling episodes: one in January 1997 and the other in November 2001. Second, much of the data submitted could not be validated because the commenters did not provide the laboratory reports for the test results. For example, the UTAC facility provided 948 measurements of the Hg concentration of the greenballs at their plant but submitted none of the laboratory reports needed to corroborate their data. Laboratory reports are needed to determine whether appropriate methods were used for sample collection and analysis, to confirm appropriate quality assurance and quality control measures were taken, and to check that the values submitted are accurate. In total, we were unable to confirm the concentration values for over 87 percent of the measurements submitted because we lacked the laboratory reports. Third, the samples were collected at irregularly spaced intervals, often with large gaps in time during which no samples were collected. These sampling intervals varied from as little as a few days to multiple years. In cases where samples were collected over a period of several

consecutive months, the measurements were not collected at consistent intervals. Ideally, the samples would be collected at representative intervals with supporting documentation of the sample collection and analysis, to avoid bias in the dataset. Finally, the data submitted for some facilities included measurements that we determined to be statistical outliers. For example, we identified two statistical outliers in the Tilden dataset, where in one case the Hg content of greenballs increased from 1.4 nanograms per gram (ng/g) on July 6, 2022, to 15.0 ng/g on July 15, 2022, before decreasing to 1.2 ng/g on July 22, 2022. The presence of statistical outliers does not necessarily mean the measurements are incorrect. However, statistical outliers raise concerns over the accuracy and representativeness of the measurements, particularly where no explanation for the anomaly is available.

Comment: Some commenters requested EPA Method 30B be included as an acceptable alternative test method for measuring Hg emissions from indurating furnaces.

Response: In response to the commenters' request, we reviewed EPA Method 30B and determined that this method is appropriate for measuring Hg emissions from indurating furnaces. In the final rule, we have updated the list of approved methods for Hg measurement to include EPA Method 30B, in addition to the proposed methods. The final rule allows owners and operators to use EPA Methods 29 or 30B in 40 CFR part 60, Appendix A-8, and the voluntary consensus standard (VCS), ASTM D6784-16, *Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)* (incorporated by reference, see 40 CFR 63.14).

Comment: Industry commenters expressed concern that the proposed Hg stack testing volumes for performance testing to demonstrate compliance with the proposed Hg standards were too large such that each test run would require too much time to complete. They

recommended that smaller test volumes would be appropriate and suggested that the test volume be small enough to allow each test run to be completed within 60 minutes.

Response: In response to the commenters' concerns regarding the stack testing volumes and duration of each test run, the EPA reconsidered the proposed sample volume requirements and revised the performance testing requirements in the final rule to require a minimum sample volume of 1.7 dry standard cubic meters (dscm) (60 dry standard cubic feet (dscf)) for EPA Method 29 and ASTM D6784-16, instead of the 3 dscm sample volume we proposed. The 1.7 dscm sample volume will allow test runs to be completed in approximately 2 hours while still ensuring that the required sample volume is sufficient for analysis and that a non-detect test result indicates compliance with the final Hg limits.

Comment: We received multiple comments recommending continuous emission monitoring systems (CEMS) for Hg be included either as a requirement for all indurating furnaces or as an optional alternative to conducting performance testing and establishing operating limits. The commenters stated that CEMS would ensure continuous compliance with the Hg standard and could help lower compliance costs by making it possible for facilities to vary the ACI rate based on the Hg emissions data collected by CEMS. Some commenters said facilities would be more likely to use CEMS if the CEMS provisions were incorporated into the rule because facilities would not have to apply for approval of an alternative monitoring method.

Response: The EPA agrees with recommendations made by commenters that suggested CEMS be included as an optional alternative to the proposed compliance monitoring and performance testing requirements. We agree that CEMS are an acceptable alternative monitoring method for assuring compliance with the Hg emissions standards. In the final rule, we have included provisions that provide owners and operators the option of using Hg CEMS in lieu of

establishing operating limits and performing periodic performance testing. These provisions will provide more options for the methods that facilities can use to demonstrate compliance with the new Hg standards and reduce the burden associated with applying for Administrator approval of an alternative monitoring plan. However, we are not requiring installation of CEMS due to compliance cost considerations, as explained in the memorandum, *Development of Impacts for the Final Amendments to the NESHAP for Taconite Iron Ore Processing*, which is available in the docket for this action.

Comment: Industry commenters were concerned that the proposed approach to setting operating limits for ACI would not allow facilities flexibility to adjust the carbon injection rates when production decreases. These commenters suggested the EPA allow flexibility to adjust the average ACI rate and average carrier flow rate based on taconite pellet production rates during stack testing to provide facilities with the operational flexibility needed at lower production rates.

Response: We agree with the industry commenters that lower ACI and carrier gas flow rates would achieve compliance with the emission limit when production rates are lower than the production rates during the performance test used to establish operating limits. We have included provisions in the final rule that allow a facility to adjust the operating limits based on taconite pellet production. Under the requirements of the final rule, a facility has the option of establishing operating limits for different production rates by conducting performance tests at the maximum, minimum, and median taconite pellet production rates of an indurating furnace to develop a relationship between the carbon injection rate and taconite pellet production rate. An owner or operator would monitor the taconite pellet production rate and adjust the ACI rate in accordance with the relationship between these parameters developed during the performance testing. If the taconite pellet production rate falls below the minimum rate measured during

performance testing, the owners and operators must maintain a carbon injection rate that is equal to, or above, the rate determined during the performance testing completed at the minimum taconite production rate.

As an alternative, an owner or operator may adjust the ACI rate based on the direct measurement of Hg emitted to the atmosphere. An owner or operator must install, calibrate, maintain, and operate CEMS to measure Hg emissions from each emission stack associated with the indurating furnace to use this alternative.

Comment: Industry commenters supported the EPA's decision to set the Hg emissions standards at the MACT floor rather than setting a BTF standard. Industry commenters stated that the capital and annual costs required to comply with the MACT floor are too high and setting BTF standards would not be cost-effective. One commenter asserted that any standard beyond the MACT floor must be justified by a "thorough and robust analysis of the costs and benefits." The commenter agreed with the EPA's proposed determination that the cost-effectiveness of the BTF options identified for Hg control were above the level historically found to be reasonable.

Several other commenters recommended the EPA set a BTF Hg standard and recommended the standard be at least 30–40 percent more stringent than the MACT floor. The commenters stated that additional Hg reductions can be achieved and that a more stringent Hg standard is warranted due to the bioaccumulative nature of Hg. The commenter noted that many water bodies located near taconite facilities already have fish consumption advisories, which commenters noted impact the rights of tribes to exercise their traditional life practices. One commenter noted that tribes have a particular interest in Hg emissions due to the Hg-related fish consumption advisories that have been issued by Minnesota since the 1970s and by the Fond du Lac Tribe beginning in 2000. One commenter stated that the 30 percent BTF option would

reduce Hg emissions to a level that would help address public health concerns associated with high concentrations of Hg in water, fish tissues, and other subsistence resources. Commenters from several tribes located near taconite facilities stated that the EPA's Tribal trust and treaty responsibilities justified adoption of a BTF option. They added that the EPA should consider its trust responsibility to protect the interests of tribes and the tribes' treaty rights and quoted from two EPA policy documents: *EPA Policy for the Administration of Environmental Programs on Indian Reservations* (issued November 1984) and *Guidance for Discussing Tribal Treaty Rights* (issued February 2016). Both documents support consideration of Tribal rights and protections in Agency decision making. Commenters noted that the areas impacted by taconite iron ore processing plants are in the areas covered by a series of treaties. These commenters disagreed with the EPA's determination that BTF options were not cost-effective.

Response: The EPA agrees with the commenters that said the Hg standard should be set at the MACT floor. In our analysis, the BTF options were above the numbers we have found cost effective for Hg controls in prior CAA section 112 rulemakings.

The EPA recognizes the Federal government's trust responsibility, which derives from the historical relationship between the Federal government and Indian Tribes. The EPA acts consistently with the Federal government trust responsibility by implementing the statutes it administers and consulting with and considering the interests of tribes when taking actions that may affect them. As we noted in the proposal, the EPA consulted with Tribal government officials during the development of this rule. The EPA's Office of Air and Radiation held a meeting with the Fond du Lac Band of Lake Superior Chippewa Reservation and the Leech Lake Band of Ojibwe Reservation on January 12, 2022, to discuss the EPA's CAA section 114 information request, and to ensure that the views of affected tribes were taken into consideration

in the rulemaking process in accordance with the *EPA Policy on Consultation and Coordination with Indian Tribes*. A summary of that consultation is provided in the document, *Consultation with the Fond du Lac Band of Lake Superior Chippewa and the Leech Lake Band of Ojibwe regarding Notice of Proposed Rulemaking for the National Emission Standards for Hazardous Air Pollutants for Taconite Iron Ore Processing Amendments on January 12, 2022*, which is available in the docket for this action.

The Agency recognizes the concerns raised by numerous Tribal commenters regarding impacts to treaty fishing and other resource rights. However, for the reasons explained below, the EPA is declining to set BTF standards for Hg, based on the statutory factors that we are required to consider pursuant to CAA section 112(d)(2) when assessing whether to set MACT standards more stringent than the MACT floor level of control. These statutory factors include the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements. As discussed in paragraphs later in this section, the cost-effectiveness values associated with BTF standards for this Taconite Iron Ore Processing rule are well above the cost-effectiveness values that EPA has historically accepted when considering BTF options for regulating mercury emissions. We note that the historic acceptable cost-effectiveness values for mercury (e.g., up to \$22,400 per pound [in 2007 dollars] in the 2011 final MATS rule, which equates to about \$32,000 per pound in current dollars) are much higher than the cost-effectiveness values we have accepted for all other HAPs (except for maybe a few exceptions such as dioxins and furans) and is based, at least in part, on the fact that mercury is a persistent, bioaccumulative, toxic (PBT) HAP. Nevertheless, we conclude that setting BTF Hg standards in this rule would be inconsistent with the values found to be cost-effective for Hg controls in prior

rulemakings. We are declining to set BTF standards in this rule based on cost and other statutory factors.

Section 112(d) of the CAA requires the EPA to set emissions standards for HAP emitted by sources in each source category and subcategory listed under CAA section 112(c). The MACT standards for existing sources must be at least as stringent as the average emissions limitation achieved by the best performing 12 percent of existing sources (for which the Administrator has emissions information) or the best performing five sources for source categories with less than 30 sources (CAA sections 112(d)(3)(A) and (B)). This level of minimum stringency is called the MACT floor. For new sources, MACT standards must be at least as stringent as the control level achieved in practice by the best controlled similar source (CAA section 112(d)(3)). The EPA may not consider costs or other impacts in determining the MACT floor.

Section 112(d)(2) of the CAA also requires the EPA to examine emission standards more stringent than the MACT floor, which the EPA refers to as BTF control options. Unlike standards set at the MACT floor level of control, when assessing whether to require emission standards more stringent than the MACT floor, the EPA must consider the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements. The EPA's BTF analysis evaluated these factors in determining whether to establish Hg standards more stringent than the MACT floor. In developing this final rule, we evaluated Hg emission limits more stringent than the MACT floor after adjusting estimates of Hg emissions, Hg emission reductions, and control costs as discussed above, including those BTF limits suggested by commenters, to assess whether a BTF option was technically achievable and cost-effective. We estimate that the total capital costs and total annual costs would range from a

low of \$137 million and \$92 million, respectively, for a limit that is 10 percent more stringent than the floor to a high of \$148 million and \$102 million, respectively, for a limit that is 40 percent more stringent than the floor. The incremental cost effectiveness for the BTF options examined varied from a low of \$46,266 per pound of Hg reduced for 30 percent more stringent than the floor to a high of \$91,140 per pound of Hg reduced for 40 percent more stringent than the floor. These values are well above the \$/pound of Hg reduced that we have historically found to be cost-effective when considering BTF options for regulating Hg emissions. Where EPA has taken costs into account, the Agency has finalized standards for mercury with cost effectiveness estimates of up to \$32,000/lb Hg reduced (adjusted to 2024 dollars). See Mercury Cell Chlor-Alkali Plants Residual Risk and Technology Review (87 FR 27002, May 6, 2022); 2011 Mercury and Air Toxics (MATS) final rule. To date, these are the highest cost-effectiveness values that we have accepted in the air toxics program for any HAP (except for maybe a few exceptions such as dioxins and furans), largely because of the toxicity and nature of Hg. While we conclude that mercury standards more stringent than the MACT floor are not cost-effective, we note that as a result of the revisions to the rule being finalized in this rulemaking, we will receive compliance test information that will allow us to evaluate our conclusions and potentially inform appropriate future regulatory activities including the next statutorily required technology review. Mercury is one of the high concern HAPs because it is environmentally persistent, it bioaccumulates in humans and food chains – including in fish, which is a concern for subsistence needs, uses and cultural practices as noted in multiple comments from Tribes – and is a neurotoxin that is especially of concern for developing fetuses and young children. For these reasons, mercury is one of the few HAPs for which we use the expression of \$ per pound and consider higher cost-effectiveness values. We also estimated the secondary impacts of the BTF

options would range between 155,000 megawatt-hours per year (MWh/yr) and 160,000 MWh/yr of electricity (with associated secondary air emissions), generate between 4.7 million and 7.4 million gallons of wastewater per year, and produce between 110,000 tons and 112,000 tons of solid waste of per year. Based on our assessment of Hg emission standards 10 percent, 20 percent, 30 percent, and 40 percent more stringent than the MACT floor, including consideration of cost and other statutory factors of setting BTF Hg standards for indurating furnaces in the source category as specified in CAA section 112(d)(2), in the final rule, we are declining to adopt BTF emission standards for Hg and are finalizing Hg standards at the MACT floor as discussed in section III.A.3 of this preamble. For more information on our analysis of the BTF control options for Hg, please see the memorandum, *Final Maximum Achievable Control Technology (MACT) Analysis for Mercury Standards for Taconite Iron Ore Indurating Furnaces*, which is available in the docket for this action.

Comment: Several commenters, including the National Park Service, several local tribes, and environmental organizations said Hg standards for the taconite industry were important because of the benefits lower Hg emissions will have on public health and the environment. One commenter cited several studies, such as the Dragonfly Mercury Project, that document elevated levels of Hg and higher risks of Hg exposure to humans and wildlife in the Great Lakes Region. This commenter stated that the upper Great Lakes Region is particularly sensitive to Hg pollution due to the abundance of wetlands and peatlands, low-pH lakes, high dissolved organic matter, low biological productivity, and other factors that provide conditions suitable for the conversion of Hg to the bioavailable form methylmercury. The commenter also stated the impacts of Hg on wildlife include reduced foraging efficiency, lower reproductive success, impaired endocrine modulation, and damage to kidney and other tissues. The commenters expressed concern over

the number of fish with Hg levels exceeding the human and wildlife health thresholds. The commenter cited data from a 1998-2016 study that measured Hg concentrations in fish from the upper Great Lakes at 0.12 ppm wet weight, with 24 percent of the fish sampled exceeding the EPA human health criterion of 0.3 ppm wet weight, 27 percent of the fish exceeding fish-eating wildlife health threshold of 0.2 ppm whole-body, and 17 percent exceeding the fish toxicity benchmark of 0.3 ppm whole-body. This commenter cited studies linking Hg deposition with bioaccumulation, including a study of Hg concentration in moose teeth from Isle Royale National Park, Michigan from 1952 to 2002. The commenter noted that Hg decreased by about two-thirds during the early 1980s but remained constant for the following 2 decades. The commenter cited an additional six studies that analyzed the concentrations and trends of Hg in bald eagle nestlings in the upper Midwest from 2006–2015 and long-term trends at two Lake Superior sites between 1989–2015. These studies show concentrations of Hg in nestling breast feathers were highest at the Saint Croix National Scenic Riverway (6.66 µg/g wet weight) and that Hg concentrations have increased at two other study area sites.

The commenters said the new Hg standards will help reduce Hg deposition in the Great Lakes Region and improve public health. The commenters asserted that taconite iron ore processing plants in Minnesota and Michigan have a significant impact on the natural resources of the upper Great Lakes Region and the elevated Hg levels in fish and bird populations. Several commenters mentioned the statewide fish consumption advisories for Hg in Minnesota, Michigan, and Wisconsin and noted several water bodies in these states are listed as impaired for aquatic consumption due to Hg. The commenters asserted that the new Hg standards will reduce the impact of Hg on public health and the environment, provide additional protection to

recreational and subsistence fish consumers in national parks and surrounding communities, and protect natural resources that are of cultural significance to many local communities.

Response: The EPA acknowledges the independent research conducted by the National Park Service and others on the impacts of Hg on the communities and wildlife of the upper Great Lakes Region. We share the commenters' concern about the elevated Hg levels in fish and other wildlife in Minnesota, Wisconsin, and Michigan, and the critical impact these Hg levels have on tribes and low-income populations that rely on the fish and wildlife from the Great Lakes region. By controlling Hg emissions, the Hg MACT standards EPA is finalizing in this action for taconite iron ore processing plants will achieve an estimated reduction of 247 pounds per year of mercury emissions from the Taconite facilities, which we expect will also achieve an unquantified reduction of Hg deposition in the Great Lakes Region and therefore improve public health of local communities, including local tribes and low-income populations.

3. What are the final MACT standards for Hg and how will compliance be demonstrated?

We are finalizing MACT standards for Hg for new and existing indurating furnaces that reflect the MACT floor level of control, based on the 99-percent UPL, of 1.4×10^{-5} lb/LT for existing sources and 2.6×10^{-6} lb/LT for new sources. We are also finalizing the emissions averaging compliance alternative that allows taconite iron ore processing facilities with more than one existing indurating furnace to comply with a Hg emissions limit of 1.3×10^{-5} lb/LT by averaging emissions on a production-weighted basis for two or more existing indurating furnaces located at the same facility.

Owners and operators may demonstrate compliance with the new Hg standards in one of two ways. Under the first option, an owner or operator may demonstrate compliance by completing performance testing and establishing operating limits for each control device used to

comply with the Hg standard. The final rule clarifies that performance testing must be performed when the production rate is equal to or greater than 90 percent of the capacity of the indurating furnace. If the performance testing cannot be performed when the production rate is equal to or greater than 90 percent of the production rate capacity of the furnace, the owner or operator may complete testing at a lower production rate if they receive approval from the delegated authority. An owner or operator selecting this option must install and operate continuous parameter monitoring systems (CPMS) to monitor the parameters specified in 40 CFR 63.9631(g). An owner or operator must take corrective action when an established operating limit is exceeded. The initial performance testing must be completed within 180 calendar days of the compliance date specified in 40 CFR 63.9583(f) for existing sources or within 180 calendar days of startup for new sources, using EPA Methods 29 or 30B in 40 CFR part 60, Appendix A-8 or the VCS ASTM D6784-16, *Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)* (incorporated by reference, see 40 CFR 63.14). The performance tests must be repeated at least twice per 5-year permit term.

The second option by which an owner or operator may demonstrate compliance is through the installation and operation of CEMS for Hg. The CEMS must be installed, calibrated, maintained, and operated in accordance with the procedures specified in 40 CFR 63.9631(j). An owner or operator selecting this approach is not required to establish operating limits, install and operate CPMS, or complete the initial and periodic performance testing for Hg emissions.

As discussed in section III.A.2 of this preamble, the final rule includes an option for adjusting the carbon injection rate based on the taconite pellet production level. The facility has the option of establishing operating limits for different production rates by conducting

performance tests at the maximum, minimum and median taconite pellet production rates to develop a relationship between carbon injection rate and taconite pellet production rate or by adjusting the ACI rate based on Hg emissions data collected by CEMS. Facilities that elect to adjust the carbon injection rate based on taconite production levels will have lower compliance costs due to lower annual consumption of activated carbon.

Each owner or operator must prepare a preventive maintenance plan and keep records of calibration and accuracy checks of the CPMS or CEMS to document proper operation and maintenance of all monitoring systems used to demonstrate compliance with the applicable Hg standard.

B. Revised Emission Standards for HCl and HF

1. What did we propose for the Taconite Iron Ore Processing source category?

As described in the May 15, 2023, proposal (88 FR 30917), we proposed to revise the numerical emission limits for HCl and HF, pursuant to CAA section 112(d)(6). CAA section 112(d)(6) requires the EPA to review standards promulgated under CAA section 112 and revise them “as necessary (taking into account developments in practices, processes, and control technologies)” no less often than every 8 years; we refer to such action under CAA section 112(d)(6) as a “technology review.” The EPA previously completed a technology review for the Taconite Iron Ore Processing source category in 2020 (85 FR 45476; July 28, 2020). In the May 15, 2023, proposal, we proposed to revise the HCl and HF standards based on new information we obtained in response to the 2022 information collection concerning emissions of these pollutants from the source category. For existing indurating furnaces, we proposed emissions standards of 4.4×10^{-2} lb/LT for HCl and 1.2×10^{-2} lb/LT for HF. For new indurating furnaces, we proposed emission standards of 4.4×10^{-4} lb/LT for HCl and 3.3×10^{-4} lb/LT for HF. We

proposed to require that owners or operators demonstrate compliance through initial and periodic performance testing (completed at least twice per 5-year permit term), establishing operating limits for each control device used to comply with the HCl and HF standards, and installing and operating continuous parameter monitoring systems (CPMS) to ensure continuous compliance with the standards.

2. What comments did we receive on the proposed revised HCl and HF emission standards, and what are our responses?

Comment: We received comments and data from industry identifying errors in the emissions data for the Tilden and Hibbing indurating furnaces submitted to the EPA in response to the CAA section 114 information request sent to the taconite facilities in 2022. For the Tilden stack test report, industry confirmed the units of measure were incorrectly listed in the stack test report submitted by industry as “pounds per ton” instead of “pounds per long ton” of taconite pellets produced. Commenters confirmed the units of measure should be “pounds per long ton.” For Hibbing, the commenters identified one transcription error in the HCl emissions data for one of the four emission stacks.

Response: In response to these comments, the EPA reviewed all stack test runs for the seven furnaces that completed HCl and HF stack testing pursuant to the 2022 CAA section 114 information request. We confirmed there was a transcription error in HCl emissions for the first run of the stack testing completed on the Hibbing furnace. Since the emissions data for Hibbing were included in the dataset used to calculate the proposed HCl emission limit, we recalculated the emission limit for HCl using the revised data. As a result of the changes to the Hibbing emissions data, the numerical emission standard for HCl for existing sources was revised from the proposed 4.4×10^{-2} lb/LT to the 4.6×10^{-2} lb/LT limit we are finalizing in this action. The

revisions to the emissions data do not impact the numerical limit for HCl for new sources or the numerical limits for HF for new and existing sources. Therefore, the proposed HCl standard for new sources of 4.4×10^{-4} lb/LT and the HF standards for new and existing sources of 3.3×10^{-4} lb/LT and 1.2×10^{-2} lb/LT, respectively, are finalized without change.

The EPA revised the units of measure for the Tilden HCl and HF emission data based on the comments we received from industry. As we explained in the proposal, the HCl and HF emissions data for the Tilden furnace are not used to calculate the emission limits for HCl and HF because Tilden's furnaces use dry electrostatic precipitators (ESP). In the proposal, we stated that we expect Tilden's two indurating furnaces would be able to meet the HF limit for existing furnaces without adding any air pollution control devices but that we expect Tilden would be required to add air pollution control devices to meet the proposed HCl emission standard.

Although the revised emission rates for Tilden are slightly lower than the emissions rates used for the proposal, we expect that Tilden's furnaces would still need to add air pollution controls to meet the HCl emission standard we are finalizing for existing furnaces. As explained in the previous paragraph, the EPA is finalizing the HCl emission standard of 4.6×10^{-2} lb/LT for existing sources. To comply with the HCl emission standard, Tilden must reduce HCl emissions by 76 percent (compared to 79 percent HCl reduction we estimated at proposal) and the HCl emissions reduction for the final rule is 683 tpy (compared to a 713 tpy reduction we estimated at proposal). Our revised total capital cost estimate for HCl controls (dry sorbent injection) is \$1.1 million and our revised annual cost estimate is \$1.4 million. The revised cost effectiveness is \$2,040 per ton of HCl removed, which is a level of cost effectiveness that is acceptable for HCl and would also likely be acceptable for any other HAP. The revised emissions data, numerical limits, and cost estimates prepared for the final rule are documented in the memorandum, *Final*

Revised Technology Review of Acid Gas Controls for Indurating Furnaces in the Taconite Iron Ore Processing Source Category, which is available in the docket for this action.

Comment: Multiple commenters were supportive of replacing PM as a surrogate for HCl and HF emissions and supported the proposed numerical emission limits for HCl and HF. One commenter said the PM limit was not a valid surrogate for emissions of HCl and HF and argued the EPA should set HCl and HF limits under the provisions of CAA section 112(d)(2) and (3). However, other commenters from industry disagreed with our proposal and said the existing standards based on PM as a surrogate for acid gases should not be changed. These commenters asserted that the EPA lacked the authority to revise the existing HCl and HF standards because the EPA had not shown that technological developments have occurred that would lower emissions of acid gases nor shown that revisions are necessary, as required by CAA section 112(d)(6). The commenters stated that new emissions data does not qualify as a development under CAA section 112(d)(6) and that the language in CAA section 112(d)(6) focuses on actual control measures and requires the EPA to update an existing emissions standard only if improvements in control measures occur and the improvements in control measures warrant a revision. The commenters added that PM is still recognized as a proper surrogate for HAP emissions and the revised standards are unnecessary because they impose a significant financial burden on taconite iron ore processing plants without reducing risks to the public health and the environment.

Response: The EPA agrees that revising the emission limits for HCl and HF is appropriate for the reasons explained in this discussion, below, and in the proposal preamble (88 FR 30926). We disagree that the EPA lacks authority to revise the existing standards for HCl and HF. When the NESHAP for the Taconite Iron Ore Processing source category was first

developed, PM emission limits were used as a surrogate for HCl and HF. The decision to use the PM standards as a surrogate for HCl and HF emissions was based on an analysis of the HCl, HF, and PM emissions data that the EPA possessed at the time of promulgation of the initial NESHAP for the Taconite Iron Ore Processing source category in 2003 (68 FR 61868; October 30, 2003). That data indicated there was a correlation between acid gas and PM emissions. We note, however, that the use of PM as a surrogate for HCl and HF and the corresponding PM emission limit were based on a limited dataset because only three furnaces conducted PM emissions tests concurrently with the HCl and HF tests. As part of the 2022 CAA section 114 information request, the EPA sought emissions data from Taconite Iron Ore Processing facilities, including stack testing for PM, HCl, and HF emissions from seven indurating furnaces located at six taconite facilities. The data received in response to the 2022 CAA section 114 information request are presented in the memorandum, *Final Emissions Data Collected in 2022 for Indurating Furnaces Located at Taconite Iron Ore Processing Plants*, which is available in the docket for this action. The 2022 dataset is not only more robust than the limited dataset available in 2003 but also more representative of current conditions since some of the control devices used on the furnaces at the time of the 2003 rulemaking have changed since that time. For example, the Keetac plant has since replaced the multicyclones on their indurating furnace with venturi scrubbers and the Tilden plant replaced a wet ESP on one stack with a dry ESP. Based on this new data, we determined it was more appropriate to directly regulate the HAP of concern than to use a surrogate. Our analysis of the 2022 data and our review of available air pollution controls for acid gases indicates that the controls we expect will be necessary to meet the numerical standards for HCl and HF are available and cost-effective. As we explained in the proposal (88 FR 30926), the new data received in response to the 2022 CAA section 114 information request

showed that indurating furnaces using wet scrubbers achieve better control of HCl and HF than furnaces using dry ESP.

We disagree with commenter that we lack the authority to revise standards pursuant to CAA section 112(d)(6) absent a showing that the revisions would reduce risk. CAA section 112(d)(6) requires the EPA to review and revise as necessary emission standards taking into account developments in practices, processes, and control technologies. This provision does not require the EPA to consider risk. We agree that the EPA has the discretion to consider cost when considering the appropriate level of control under CAA section 112(d)(6). The EPA identified dry sorbent injection (DSI) and wet scrubbers as a feasible control options and estimated the associated costs. We concluded that DSI is the lowest cost option for the indurating furnaces located at the Tilden plant. Based on this analysis, the EPA concluded the costs to comply with the numerical limits for HCl were justified and cost-effective and do not impose a significant financial burden on industry. The cost effectiveness was estimated to be \$2,040 per ton of HCl removed, which is within the range the EPA has previously considered to be a cost-effective level of control for many HAP. Based on the 2022 emissions data, add on air pollution controls are not required to meet the HF emission limit. The standards we are finalizing in this action ensure HCl and HF emissions from all indurating furnaces in the source category are controlled to the same extent as the best performing indurating furnaces in the source category.

Comment: Industry commenters stated there is no basis for changing the way HCl and HF emissions are regulated, that the EPA did not explain why PM cannot be used as a surrogate for HCl and HF emissions, and that if revised standards were needed, they should be based on the subcategories established in the Taconite Iron Ore Processing NESHAP in 2003. The commenters stated that the EPA should make determinations on whether new standards are

necessary for each subcategory and then should base any new standards for each subcategory on emission data for the furnaces within that subcategory. The commenters acknowledged that CAA section 112(d)(6) authorizes the EPA to review and revise as necessary the emission standards every 8 years, but they said the statute does not permit the EPA to develop new standards ignoring the existing subcategories. The commenters argued the Tilden facility processes a different type of taconite ore (*i.e.*, hematite instead of magnetite) than the other facilities and therefore the furnaces at this facility should remain in a separate subcategory from the furnaces at the other facilities (as was the case when the EPA established the PM standards in the 2003 NESHAP). The commenters noted that a subcategory was established for grate kilns processing hematite ore because of differences in the ore and furnace, including different air flow direction and rates, the perpetual motion of the pellets inside the kiln, fineness of the hematite ore, tendency for the hematite pellets to break, and production of fluxed pellets that use limestone/dolomite containing chloride. For furnaces that process magnetite, the commenters argued that limits for HCl and HF are not needed and would result in unnecessary compliance costs without health and environmental benefits.

Response: We disagree with the industry commenters' assertion that the EPA should extend the subcategorization for PM standards used in the 2003 rulemaking and set HCl and HF limits only for grate kilns processing hematite ore. When the NESHAP for the Taconite Iron Ore Processing source category was initially developed, indurating furnaces were identified as significant sources of HCl and HF emissions. The NESHAP promulgated in 2003 established limits, as required under CAA section 112(d), for all indurating furnaces. The decision to use the PM standards as a surrogate for HCl and HF emissions was based on very limited HCl, HF, and PM emissions data available and evaluated for the 2003 rulemaking. As we explained in the

response to the previous comment, in this action, we have determined it is more appropriate to directly regulate the HAP of concern (*i.e.*, HCl and HF) than to use a surrogate, using the more robust 2022 dataset now available to us. The data collected for this rulemaking are presented in the memorandum, *Final Emissions Data Collected in 2022 for Indurating Furnaces Located at Taconite Iron Ore Processing Plants*, which is available in the docket for this action.

We disagree with commenters' assertion that emission limits for acid gases should be established using the existing subcategories for PM and that HCl and HF standards are not necessary for furnaces that process magnetite ore. The EPA found in the 2003 NESHAP final rule that HCl and HF are emitted by all indurating furnaces and established standards for all types of indurating furnaces in the Taconite Iron Ore Processing source category, including those indurating furnaces that process magnetite ore. Indeed, the emissions data collected in response to the 2022 CAA section 114 information request demonstrate that indurating furnaces processing magnetite ore emit measurable levels of HCl and HF even after control by wet scrubbers. HCl and HF are formed in indurating furnaces due to the presence of chlorides and fluorides in the raw materials used to form the greenballs (*i.e.*, unfired taconite pellets) that are fed into the indurating furnaces. While some of the chlorides and fluorides in the raw materials come from the ore, pellet additives, such as dolomite and limestone, are also a source of HCl and HF emissions. These additives are routinely used by all taconite plants, including those that process magnetite ore. Although the commenters suggested plants processing hematite ore using grate-kilns should be considered a separate subcategory when considering acid gas emissions, the commenters provided no data demonstrating a significant difference in the chloride and fluoride content of the two types of ores. Nor did they provide any explanation or data to support their assertion that differences in the design of the indurating furnace impact HCl and HF

emissions. The data pertaining to indurating furnaces processing magnetite ore that was collected in response to the 2022 CAA section 114 information request does not show a significant difference in acid gas emissions between straight-grate and grate kiln indurating furnaces.

Pursuant to CAA section 112(d)(1), the Administrator “may distinguish among classes, types, and sizes of sources within a category or subcategory in establishing” standards. However, as we have discussed in previous Agency actions, the CAA does not mandate that the EPA create subcategories. See, e.g., *National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units* (77 FR 9304, 9378; February 16, 2012) (“2012 Mercury and Air Toxics Final Rule”). In addition, the Agency may create subcategories for the purpose of regulating specific HAP, while declining to create subcategories more broadly. In the 2012 Mercury and Air Toxics Final Rule, we explained the Agency’s position that any basis for subcategorization (*i.e.*, class, type, or size) typically must be related to an effect on HAP emissions that is due to the difference in class, type, or size of the sources. We further explained that “[e]ven if we determine that emissions characteristics are different for units that differ in class, type, or size, the Agency may still decline to subcategorize if there are compelling policy justifications that suggest subcategorization is not appropriate” (77 FR 9378). In the 2012 Mercury and Air Toxics Final Rule, we determined it was appropriate to subcategorize coal-fired boilers for purposes of regulating Hg emissions based on differences in Hg emissions between two types of coal-fired boiler subcategories. We also determined that for all other HAP, the data did not show any difference in HAP emission levels, and we declined to set separate emission standards for the two types of coal-fired boilers for other HAP.

In this final rule, we are retaining the separate PM emission limits established in the 2003 final rule for indurating furnaces processing magnetite and hematite. Based on the data available, we continue to believe it is appropriate to retain these separate PM emission standards because hematite is a finer grained ore than magnetite, and processing of hematite in an indurating furnace results in higher PM emissions than processing magnetite. However, we are declining to subcategorize taconite indurating furnaces for purposes of regulating Hg or acid gas emissions. As explained previously, pursuant to CAA section 112(d)(1), the EPA has the discretion to subcategorize sources for the purpose of setting emission standards under CAA section 112, but is not required to do so. As we also explained, where the EPA elects to subcategorize sources, we typically do so for the purpose of setting standards for specific HAP where the basis for the subcategorization is related to an effect on HAP emissions that is due to a difference in class, type, or size of the sources. The differences in emissions of HCl and HF among taconite indurating furnaces are largely the result of differing controls utilized by sources rather than a result of the class, type, or size of the indurating furnaces themselves. Therefore, we conclude that the differences in HCl and HF emissions are not due to differences in the class, type, or size of taconite indurating furnaces. As a result, we do not believe it is appropriate to subcategorize taconite indurating furnaces for the purpose of regulating Hg, HCl, or HF emissions and are declining to do so in this final rule.

Based on the data available, the EPA proposed to set HCl and HF emission standards that apply to all indurating furnaces. In this action, we are finalizing emission standards for HCl and HF as discussed in section III.B.1 of this preamble. While the HCl emission standard for existing furnaces differs from what we proposed for the reasons explained in section III.B.2 of this

preamble, we continue to believe it is appropriate to set numerical emission standards for HCl and HF based on the 2022 ICR data rather than to continue to rely on PM standards as a surrogate for these pollutants. While we expect that most indurating furnaces will be able to meet the revised HCl and HF limits using existing air pollution controls, the new performance testing and parametric monitoring requirements are necessary to ensure continuous compliance with the HCl and HF emission standards. The PM testing and monitoring requirements in the current NESHAP designed to ensure compliance with the PM emission standards, which will remain in place as surrogates for non-Hg metal HAP, are not sufficient to demonstrate compliance with the HCl and HF emission standards. Each owner and operator must complete performance testing, establish operating limits for each control device used to control HCl and HF, and monitor the appropriate parameters to demonstrate the control device is operating in a manner that ensures compliance with the HCl and HF emission standards. Performance testing must be completed at least twice per 5-year permit term and within 180 days of startup of new furnaces.

Comment: Industry commenters asserted the data used to develop the numerical standards for HCl and HF was too limited to reflect the operational and seasonal variability in the HCl and HF emissions. They stated that several factors influence the HCl and HF emissions and that the emissions data received in response to the 2022 CAA section 114 information request covers too short of a time period to be representative of the acid gas emissions from indurating furnaces. The commenters noted that HCl and HF emissions are driven by the chloride or fluoride content in the iron ore and that the limited dataset does not account for the full range of variability in the chlorine and fluorine content of raw materials. They stated that the raw materials vary throughout a taconite mine, producing raw materials with different compositions and

characteristics that are not reflected in the 2022 CAA section 114 information request data. The commenters recommended the HCl and HF limits be based on a more representative dataset collected over a longer period of time that accounts for raw material variation as well as seasonal and operational variation. The commenters stated that because the proposed limits are based on a limited dataset that does not fully account for operational variability, the proposed HCl and HF emission limits should not be finalized and they recommended that the PM standards in the current NESHAP continue to be used as a surrogate for acid gas emissions.

Response: The method used to calculate the proposed numeric emission limits for HCl and HF for new and existing taconite indurating furnaces has been used for several years to set numerical limits for other source categories and is an appropriate methodology that accounts for variability in the emissions between different furnaces and different plants and accounts for some variability in the chloride and fluoride content of the ore and pellet additives used at different facilities because it includes data from two different types of indurating furnaces (straight grate furnaces and grate kiln furnaces) at five different taconite facilities. We used the emissions data from the six indurating furnaces currently using wet scrubbers to calculate a UPL. The UPL approach encompasses all the data point-to-data point variability within the sample set (*i.e.*, all of the emissions data from the six indurating furnaces equipped with wet venturi scrubbers), which consisted of 21 individual data points. The UPL was calculated as the mean of the 21 data points plus a factor that accounts for the variability within the dataset. The UPL represents the value which one can expect the mean of a specified number of future observations (*e.g.*, 3-run average) to fall below at a specified level of confidence based upon the results of an independent sample from the same population. We used a 99-percent level of confidence to calculate the UPL, which means that a facility that uses the same or similar type of air pollution control device(s) has one

chance in 100 of exceeding the emission limit. A prediction interval for a single future observation (or an average of several test observations) is an interval that will, with a specified degree of confidence, contain the next (or the average of some other pre-specified number of) randomly selected observation(s) from a population. The UPL estimates what the upper bound of future values will be based upon present or past background samples taken. While larger datasets are always preferable, numerical emission limits are often based on data from a single stack test event. For additional information on the methodology used to develop the numerical emission standards for HCl and HF for the final rule, please see the memorandum, *Final Revised Technology Review of Acid Gas Controls for Indurating Furnaces in the Taconite Iron Ore Processing Source Category*. A copy of this document is available in the docket for this action.

3. What are the revised standards for HCl and HF and how will compliance be demonstrated?

We are finalizing numerical emission limits for HCl and HF, pursuant to CAA section 112(d)(6). We are finalizing as proposed the numerical emission limit for HCl for new indurating furnaces. We are finalizing a numerical emission limit for HCl for existing indurating furnaces which differs from the limit proposed because the final limit reflects a revision to the emissions data for the Hibbing facility, as discussed in section III.B.2 of this preamble. We are finalizing as proposed the numerical emission limits for HF for new and existing indurating furnaces. For existing indurating furnaces, we are finalizing an HCl emission limit of 4.6×10^{-2} lb/LT and are finalizing an HF emission limit of 1.2×10^{-2} lb/LT. For new indurating furnaces, we are finalizing an HCl emission limit of 4.4×10^{-4} lb/LT and are finalizing an HF emission limit of 3.3×10^{-4} lb/LT. Further discussion of the HCl and HF emission standards and the methodology used to develop the emission standards, as well as a discussion of costs, may be found in the memorandum, *Final Revised Technology Review of Acid Gas Controls for Indurating Furnaces*

in the Taconite Iron Ore Processing Source Category, which is available in the docket for this action.

We are also finalizing as proposed the requirement to complete performance testing for HCl and HF using EPA Method 26A and to establish operating limits for each control device used to comply with the HCl and HF standards, in accordance with the amended provisions of 40 CFR 63.9622. The final rule clarifies that the owner or operator must perform performance testing when the pellet production rate is equal to or greater than 90 percent of the capacity of the indurating furnace. If the performance testing cannot be performed at or above 90 percent of capacity of the indurating furnace, the owner or operator may complete testing at a lower production rate if they receive approval from the delegated authority. The owner or operator must install and operate CPMS in accordance with the requirements of 40 CFR 63.9633 and must prepare a preventive maintenance plan and keep records of calibration and accuracy checks of the CPMS to document proper operation and maintenance of each monitoring system. An owner or operator must take corrective action when an established operating limit is exceeded. The owner or operator must complete the initial performance tests within 180 calendar days of the compliance date for existing furnaces, or within 180 calendar days of startup for new furnaces. The performance tests must be repeated at least twice per 5-year permit term.

C. What other amendments are we finalizing?

1. Requirement to complete performance testing within 7 calendar days

The EPA proposed amendments to the performance testing provisions that would require the owner or operator to complete a performance test on a source within 7 calendar days of initiating that performance test. This provision was included for the existing performance testing for PM, as well as for the proposed new performance testing for Hg, HCl, and HF. We received

one comment that resulted in changes to the proposed requirements. The comment and our response are summarized below.

Comments: Industry commenters opposed the proposed requirement that all performance testing be completed within 7 calendar days because some emission sources have multiple stacks and testing of multiple stacks could require more than 7 days to complete. They also stated that unanticipated shutdowns due to process upsets may prevent tests from being completed within 7 days. The commenters recommended that the EPA allow facilities to notify the Administrator when a longer time frame is needed but asserted that facilities should not be required to obtain approval if more than 7 calendar days are needed to complete performance testing.

Response: We consider the 7 calendar day period to complete all performance testing to be reasonable based on our previous experience with performance testing at industrial facilities. We believe it is unlikely that a facility would be unable to complete the required performance testing within a 7 calendar day timeframe. However, we acknowledge the commenters' concerns that unanticipated shutdowns can occur due to equipment failures or process upsets. To address such circumstances, we included the phrase "to the extent practicable" in the final rule. We have finalized the proposed requirement that performance tests be completed within 7 calendar days of the date on which the first test run was started. However, we agree with the commenters' suggestion that owners and operators be required to notify the Administrator when a performance test cannot be completed within 7 calendar days. In the final rule, we revised the proposed language in 40 CFR 63.9620(b)(2), 63.9620(k)(2), and 63.9630(b) to require facilities that will not be able to complete performance tests within 7 calendar days to notify the Administrator within 24 hours of making the determination that they will not be able to do so.

2. Amendments to the electronic reporting requirements

We are also finalizing as proposed changes to the electronic reporting requirements found in 40 CFR 63.9641(c) and 40 CFR 63.9641(f)(3) to reflect new procedures for reporting CBI, including adding an email address that an owner or operator may use to electronically submit compliance reports containing CBI to the OAQPS CBI Office. We received no comments on these proposed amendments.

D. What are the effective and compliance dates for the mercury, HCl, and HF emission standards?

The revisions to the MACT standards promulgated in this action are effective on **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. For all affected sources that commence construction or reconstruction before May 15, 2023, we are finalizing, as proposed, that an owner or operator must comply with the new Hg emission standard and revised HCl and HF standards no later than 3 years after the effective date of the final rule. For all affected sources that commenced construction or reconstruction on or after May 15, 2023, we are finalizing, as proposed, that owners and operators comply with provisions by the effective date of the final rule or upon startup, whichever is later. For existing sources, CAA section 112(i)(3) requires compliance “as expeditiously as practicable, but in no event later than 3 years after the effective date of such standard” subject to certain exemptions further detailed in the statute.⁴ In determining what compliance period is as “expeditious as practicable,” we examine the amount of time needed to plan and construct projects and change operating procedures. Since some existing sources may need to install new add-on controls to comply with the Hg, HCl, and/or HF

⁴ *Association of Battery Recyclers v. EPA*, 716 F.3d 667, 672 (D.C. Cir. 2013) (“Section 112(i)(3)’s 3-year maximum compliance period applies generally to any emission standard . . . promulgated under [section 112]” (brackets in original)).

standards, we determined that a period of 3 years is appropriate to allow owners and operators time to plan, design, construct, begin operating the new add-on controls, and conduct performance testing.

IV. Summary of Cost, Environmental, and Economic Impacts

A. What are the affected sources?

The Taconite Iron Ore Processing NESHAP applies to the owner or operator of a taconite iron ore processing plant that is (or is part of) a major source of HAP emissions. A taconite iron ore processing plant is any facility engaged in separating and concentrating iron ore from taconite ore to produce taconite pellets. Taconite iron ore processing includes the following processes: liberation of the iron ore by wet or dry crushing and grinding in gyratory crushers, cone crushers, rod mills, and ball mills; concentration of the iron ore by magnetic separation or flotation; pelletizing by wet tumbling with a balling drum or balling disc; induration using a straight grate or grate kiln indurating furnace; and finished pellet handling. A major source of HAP is a plant site that emits, or has the potential to emit, any single HAP at a rate of 9.07 megagrams (10 tons) or more, or any combination of HAP at a rate of 22.68 megagrams (25 tons) or more per year from all emission sources at the plant site. There are currently seven major sources subject to the Taconite Iron Ore Processing NESHAP that are operating in the United States with six located in Minnesota and one located in Michigan. One additional major source located in Michigan, Empire Mining, is subject to the Taconite Iron Ore Processing NESHAP and has a permit to operate but has been indefinitely idled since 2016.

B. What are the air quality impacts?

To meet the Hg emission limits we anticipate that five of the taconite iron ore processing plants would likely need to install additional controls on their indurating furnaces. To meet the

HCl and HF emission limits, we anticipate that one additional taconite iron ore processing plant would likely need to install additional controls on their indurating furnaces. We estimate that the installation of such controls will reduce Hg emissions by 247 pounds per year (0.12 tpy) and HCl and HF emissions by 683 tpy and 36 tpy, respectively.

Indirect or secondary air emissions impacts are impacts that would result from the increased electricity usage associated with the operation of control devices (*e.g.*, increased secondary emissions of criteria pollutants from power plants). Energy impacts consist of the electricity and steam needed to operate control devices and other equipment. As explained in the memorandum, *Development of Impacts for the Final Amendments to the NESHAP for Taconite Iron Ore Processing*, which is available in the docket for this action, we find that the secondary air emissions impacts of this action are minimal. The memorandum includes a detailed discussion of our analysis of emissions reductions and potential secondary impacts.

This rule is expected to limit emissions of directly emitted PM_{2.5}, which will in turn reduce ambient concentrations of PM_{2.5} and in turn benefit public health. Though EPA neither quantified nor monetized these benefits, we anticipate reducing PM_{2.5} concentrations will reduce the incidence or premature death, non-fatal heart attacks, cases of aggravated asthma, lost days of work and school and other adverse effects (U.S. EPA, 2022).⁵ EPA has generated benefit per ton estimates for directly emitted PM_{2.5} reductions from the taconite sector valued at \$60,600/ton

⁵ U.S. EPA, 2022. *Estimating PM_{2.5}- and Ozone-Attributable Health Benefits*. Office of Air and Radiation, Research Triangle Park, NC.

(2016\$)⁶. In addition, there are estimates for secondarily-formed PM_{2.5} from reductions in SO₂ emissions valued at \$32,800/ton (2016\$). However, EPA did not conduct a comprehensive benefit-cost analysis for this rulemaking. This rule is also expected to reduce emissions of Hg. Methylmercury (MeHg), which is formed by microbial action in the top layers of sediment and soils, after mercury has precipitated from the air and deposited into waterbodies or land, is known to cause a number of adverse effects. Though not quantified here, these effects include IQ loss measured by performance on neurobehavioral tests, particularly on tests of attention, fine motor-function, language, and visual spatial ability.

C. What are the cost impacts?

We estimate the total capital and annualized costs of this final rule for existing sources in the Taconite Iron Ore Processing source category will be approximately \$106 million and \$68 million per year, respectively. The annual costs are based on operation and maintenance of added control systems. Although this action also finalizes standards for new sources, we are not aware of any new sources being constructed now or planned for the future. No new indurating furnaces have been constructed, reconstructed or modified in more than a decade and the domestic demand for taconite pellets has decreased over the past several decades caused by the increasing

⁶U.S. EPA (2023). Technical Support Document Estimating the Benefit per Ton of Reducing Directly-Emitted PM_{2.5}, PM_{2.5} Precursors and Ozone Precursors from 21 Sectors. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Health and Environmental Impact Division. Available at: https://www.epa.gov/system/files/documents/2021-10/source-apportionment-tsd-oct-222021_0.pdf

use of electric arc furnaces.⁷ Consequently, we did not estimate any cost impacts for new sources. The memorandum, *Development of Impacts for the Final Amendments to the NESHAP for Taconite Iron Ore Processing*, includes details of our cost assessment, expected emission reductions and estimated secondary impacts. A copy of this memorandum is available in the docket for this action.

D. What are the economic impacts?

The EPA assessed the potential economic impacts of this action by comparing the expected annual cost for operating the air pollution control devices to the total sales revenue for the ultimate owners of affected facilities. The expected annual cost is \$10.2 million (on average) for each facility that needs air pollution controls to comply with the standards, with an estimated nationwide annual cost of \$61 million per year. The six affected facilities are owned by two parent companies (U.S. Steel and Cleveland-Cliffs, Inc.). Neither parent company qualifies as a small business, and the total costs associated with this final rule are expected to be less than 1 percent of annual sales revenue per ultimate owner.

The EPA also modeled the economic impacts of the final rule using two standard partial equilibrium economic models: one for taconite iron ore pellets and one for steel mill products. The EPA linked these two partial equilibrium models by specifying interactions between supply and demand in both markets and solving for changes in prices and quantity across both markets simultaneously. These models use baseline economic data from 2019 to project the impact of the

⁷ U.S. EPA, 2024. *Economic Impact Analysis for the Final National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing Amendments*. Office of Air and Radiation, Research Triangle Park, NC.

final rule on the market for taconite iron ore pellets and steel mill products. The models allow the EPA to project facility- and market-level price and quantity changes for taconite iron ore pellets and market-level price and quantity changes for steel mill products, including changes in imports and exports in both markets. The models project a 0.28 percent fall in the quantity of domestically produced taconite iron ore pellets along with a 0.63 percent increase in their price. The models also project a 0.02 percent fall in the quantity of domestically produced steel mill products along with an 0.01 percent increase in their price. Details of our economic impact estimates for sources in the Taconite Iron Ore Processing source category may be found in the document, *Economic Impact Analysis for the Final National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing Amendments* (EIA), which is available in the docket for this action.

E. What analysis of environmental justice did we conduct?

Consistent with the EPA’s commitment to integrating environmental justice (EJ) into the Agency’s actions, and following the directives set forth in multiple executive orders, the EPA evaluated the impacts of this action on communities with EJ concerns. Overall, we found that in the population living in close proximity (within 10 kilometers (km)) of facilities, the following demographic groups were above the national average: White, Native American, and people living below the poverty level. The EPA defines EJ as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”⁸ The EPA further defines fair treatment to mean that “no group of people should bear

⁸ <https://www.epa.gov/environmentaljustice>.

a disproportionate burden of environmental harms and risks, including those resulting from the negative environmental consequences of industrial, governmental, and commercial operations or programs and policies.”

For the Taconite Iron Ore Processing source category, the EPA examined the potential for EJ concerns by conducting a proximity demographic analysis for the eight existing taconite iron ore processing plants (seven operating plants and one indefinitely idled). The proximity demographic analysis is an assessment of individual demographic groups in the total population living within 10 km and 50 km of the facilities. The EPA compared the data from this analysis to the national average for each of the demographic groups. Since the taconite iron ore processing facilities are very large, a radius of 10 km was used as the near facility distance for the proximity analysis. A distance closer than 10 km does not yield adequate population size for the results. A summary of the proximity demographic assessment was included in Table 5 in the proposal for this rulemaking (88 FR 30931; May 15, 2023). The results show that for the population living within 10 km of the eight facilities, the following demographic groups were above the national average: White (93 percent versus 60 percent nationally), Native American (0.8 percent versus 0.7 percent nationally), and people living below the poverty level (15 percent versus 13 percent nationally). For two facilities (the UTAC and Minntac facilities), the percentage of the population living within 10 km that is Native American (1.9 percent and 2.3 percent) was more than double the national average (0.7 percent). For four facilities (Keetac, Hibbing, Minorca, and Minntac) the percentage of the population living within 10 km that is low-income is above the national average. The results of the proximity analysis are in the technical report, *Analysis of Demographic Factors For Populations Living Near Taconite Iron Ore Processing Source Category Operations*, which is available in the docket for this action.

This action sets new standards for Hg and revised standards for HCl and HF that will reduce the annual emissions of these HAP from taconite facilities. The Hg standards will reduce the health, environmental and cultural impacts of Hg identified by tribes in their comments by requiring the five taconite facilities (UTAC, Keetac, Hibbing, Minorca, and Minntac) that have nearby Native American populations and low-income populations above the national averages to reduce Hg emissions by up to 247 pounds per year (0.12 tpy). The emission limits must be met at all times (including periods of startup, shutdown, and malfunctions) and compliance must be demonstrated through monitoring of control device operating parameters and either periodic testing or CEMS.

V. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at

<https://www.epa.gov/laws-regulations/laws-and-executive-orders>.

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is a “significant regulatory action” as defined in Executive Order 12866, as amended by Executive Order 14094. Accordingly, the EPA submitted this action to the Office of Management and Budget (OMB) for Executive Order 12866 review. Documentation of any changes made in response to the Executive Order 12866 review is available in the docket. The EPA prepared an economic analysis of the potential impacts associated with this action. This analysis is summarized in section IV.D of this preamble and in the document *Economic Impact Analysis for the Final National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing Amendments*, available in Docket ID No. EPA-HQ-OAR-2017-0664.

B. Paperwork Reduction Act (PRA)

This document is a prepublication version, signed by EPA Administrator, Michael S. Regan on 01/31/2024. We have taken steps to ensure the accuracy of this version, but it is not the official version.

The information collection activities in this rule have been submitted for approval to the OMB under the PRA. The ICR document that the EPA prepared has been assigned EPA ICR number 2050.10, OMB Control Number 2060-0538. You can find a copy of the ICR in the docket for this action, and it is briefly summarized here. The information collection requirements are not enforceable until OMB approves them.

In this action, we are finalizing changes to the reporting and recordkeeping requirements for the Taconite Iron Ore Processing NESHAP by incorporating reporting and recordkeeping requirements for the new MACT standards for Hg and the revised emission standards for HCl and HF.

Respondents/affected entities: Owners or operators of taconite iron ore plants that are major sources, or that are located at, or are part of, major sources of HAP emissions.

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

Estimated number of respondents: On average over the next 3 years, approximately seven existing major sources will be subject to these standards. It is also estimated that no additional respondent will become subject to the emission standards over the 3-year period.

Frequency of response: The frequency of responses varies depending on the burden item.

Total estimated burden: The average annual burden to industry over the next 3 years from the new recordkeeping and reporting requirements is estimated to be 1,580 hours per year. Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: The annual recordkeeping and reporting costs for all facilities to comply with all the requirements in the NESHAP is estimated to be \$185,000 per year. The average annual recordkeeping and reporting cost for this rulemaking is estimated to be \$26,500

per facility per year. The operation and maintenance costs are estimated to be \$18 million per year.

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.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities. The Agency confirmed through responses to a CAA section 114 information request that there are only seven taconite iron ore processing plants currently operating in the United States and that these plants are owned by two parent companies that do not meet the definition of small businesses, as defined by the U.S. Small Business Administration.

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

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the National Government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have Tribal implications as specified in Executive Order 13175. The Executive Order defines Tribal implications as “actions that have substantial direct effects on one or more Indian Tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.” The amendments in this action would not have a substantial direct effect on one or more tribes, change the relationship between the Federal Government and tribes, or affect the distribution of power and responsibilities between the Federal Government and Indian Tribes. Thus, Executive Order 13175 does not apply to this action.

Although this action does not have Tribal implications as defined by Executive Order 13175, consistent with the *EPA Policy on Consultation and Coordination with Indian Tribes*, the EPA consulted with Tribal officials during the development of this action. On January 12, 2022, the EPA’s Office of Air and Radiation held a Tribal consultation meeting with the Fond du Lac Band of Lake Superior Chippewa Reservation and the Leech Lake Band of Ojibwe Reservation to discuss the EPA’s 2022 CAA section 114 information request and to ensure that the views of tribes were taken into consideration in the rulemaking process in accordance with the *EPA Policy on Consultation and Coordination with Indian Tribes (May 4, 2011)* and the *EPA Policy on Consultation and Coordination with Indian Tribes: Guidance for Discussing Tribal Treaty Rights (February 2016)*. A summary of the meeting may be found in the document, *Consultation with the Fond du Lac Band of Lake Superior Chippewa and the Leech Lake Band of Ojibwe*

regarding Notice of Proposed Rulemaking for the National Emission Standards for Hazardous Air Pollutants for Taconite Iron Ore Processing Amendments on January 12, 2022, which is available in the docket for this action. In addition, the EPA's staff attended several meetings hosted by the Minnesota Pollution Control Agency (MPCA), along with representatives from Tribal Nations, MPCA, the Michigan Attorney General's Office, the Minnesota Attorney General's Office, Earthjustice, and the Michigan Department of Environment, Great Lakes, and Energy, to discuss concerns related to HAP emissions from taconite iron ore processing facilities. The EPA also received letters from representatives of the Leech Lake Band of Ojibwe and the Fond du Lac Band of Lake Superior Chippewa expressing concerns of these Tribal Nations due to HAP emissions from the taconite iron ore processing facilities. Copies of these letters, as well as the EPA's responses to them, are available in the docket for this action.

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

This action involves technical standards. Therefore, the EPA conducted searches for the Taconite Iron Ore Processing NESHAP through the Enhanced National Standards Systems Network (NSSN) Database managed by the American National Standards Institute (ANSI). We also conducted a review of VCS organizations and accessed and searched their databases. We conducted searches for EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 5, 5D, 17, 26A, 29 and 30B. During the 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 ordered a copy of the standard and 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 referenced methods. The EPA may reconsider determinations of impracticality when additional information is available for any particular VCS.

No VCS were identified for EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 4, 5, 5D, 17 or 26A. One VCS was identified as an acceptable alternative to EPA Methods 3B, 29 and 30B.

The EPA is allowing use of the VCS ASTM D6784–16, “Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)” as an acceptable alternative to EPA Method 29 (Hg portion only) as a method for measuring Hg concentrations ranging from approximately 0.5 to 100 micrograms per normal cubic meter ($\mu\text{g}/\text{Nm}^3$). This test method describes equipment and procedures for obtaining samples from effluent ducts and stacks, equipment and procedures for laboratory analysis, and procedures for calculating results. VCS ASTM D6784–16 allows for additional flexibility in the sampling and analytical procedures from the earlier version of the same standard VCS ASTM D6784–02 (Reapproved 2008). VCS ASTM D6784–16 allows for the use of either an EPA Method 17 sampling configuration with a fixed (single) point where the flue gas is not stratified, or an EPA Method 5 sampling configuration with a multi-point traverse. For this action, only the EPA Method 5 sampling configuration with a multi-point traverse can be used. This method is available at ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959. See <https://www.astm.org/>. The standard is available to everyone at a cost determined by ASTM (\$82). The cost of obtaining this method is not a significant financial burden, making the method reasonably available. Additional detailed information on the VCS search and determination can be found in the memorandum, *Voluntary Consensus Standard Results for National Emission Standards for Hazardous Air Pollutants:*

Taconite Iron Ore Processing, which is available in the docket for this action. The EPA solicited comment on potentially applicable VCS in the proposal for this rule. However, no other VCS were identified. The EPA is finalizing as proposed incorporating by reference the VCS ASTM D6784–16, “Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method),” as an acceptable alternative to EPA Method 29 (Hg portion only).

H. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations and Executive Order 14096: Revitalizing Our Nation’s Commitment to Environmental Justice for All

The EPA believes that the human health or environmental conditions that exist prior to this action result in or have the potential to result in disproportionate and adverse human health or environmental effects on communities with EJ concerns. The assessment of populations in close proximity of taconite iron ore processing plants shows Native American and low-income populations are higher than the national average (see section IV.E of this preamble). The higher percentages of Native American populations are near the UTAC and Minntac facilities. The higher percentages of low-income populations are near the Keetac, Hibbing, Minorca, and Minntac facilities. The EPA believes that this action is likely to reduce existing disproportionate and adverse effects on low-income populations and/or indigenous peoples. The EPA is finalizing new MACT standards for Hg and revised standards for HCl and HF. The EPA expects that at least five facilities would have to implement control measures to reduce Hg emissions to comply with the new Hg MACT standard (including the UTAC, Keetac, Hibbing, Minorca and Minntac facilities) and one facility would need to implement control measures to reduce HCl emissions to comply with the revised standard for HCl (the Tilden facility). HAP exposures for indigenous

peoples and low-income individuals living near these six facilities would decrease. The methodology and the results of the demographic analysis are available in the docket for this action in the technical report *Analysis of Demographic Factors For Populations Living Near Taconite Iron Ore Processing Source Category Operations*.

I. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

Executive Order 13045 (62 FR 19885; April 23, 1997) directs Federal agencies to include an evaluation of the health and safety effects of the planned regulation on children in Federal health and safety standards and explain why the regulation is preferable to potentially effective and reasonably feasible alternatives. This action is not subject to Executive Order 13045 because it is not significant as defined in Executive Order 12866(3)(f)(1), and because the EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. In 2020, the EPA conducted a residual risk assessment and determined that risk from the Taconite Iron Ore Processing source category was acceptable, and the standards provided an ample margin of safety to protect public health (see 85 FR 45476 and Docket ID No. EPA-HQ-OAR-2017-0664-0163). For this rulemaking, we updated that risk analysis using new emissions data that the EPA received for some HAP emissions sources at the taconite facilities. We determined that these new HAP emissions estimates would not significantly change our previous estimates of the human health risk posed by the Taconite Iron Ore Processing source category. In this action the EPA is promulgating new emission standards for one previously unregulated pollutant (Hg) and revised emissions standards for two currently regulated pollutants (HCl and HF). These emissions standards will reduce Hg, HCl and HF emissions and thereby reduce children's exposure to these harmful HAP. We estimate that the

installation of controls will reduce HCl and HF emissions by 683 tpy and 36 tpy, respectively, and will reduce Hg emissions by up to 247 pounds per year (0.12 tpy).

This action's health and risk assessments are protective of the most vulnerable populations, including children, due to how we determine exposure and through the health benchmarks that we use. Specifically, the risk assessments we perform assume a lifetime of exposure, in which populations are conservatively presumed to be exposed to airborne concentrations at their residence continuously, 24 hours per day for a 70-year lifetime, including childhood. With regards to children's potentially greater susceptibility to noncancer toxicants, the assessments rely on the EPA's (or comparable) hazard identification and dose-response values that have been developed to be protective for all subgroups of the general population, including children. For more information on the risk assessment methods, see the risk report for the July 28, 2020, final Taconite residual risk and technology review (RTR) rule (85 FR 45476), which is available in the docket. Therefore, the rulemaking finalizes actions that will result in health benefits to children by reducing the level of HAP emissions emitted from taconite iron ore processing plants.

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

This action is not a “significant energy action” because it is not likely to have a significant adverse effect on the supply, distribution or use of energy. We have concluded that this action is not likely to have any adverse energy effects because it contains no regulatory requirements that will have an adverse impact on productivity, competition, or prices in the energy sector.

K. Congressional Review Act (CRA)

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

List of Subjects in 40 CFR Part 63

Environmental protection, air pollution control, hazardous substances, incorporation by reference, mercury, hydrogen chloride, hydrogen fluoride, reporting and recordkeeping requirements.

Michael S. Regan,

Administrator.

For the reasons stated in the preamble, title 40, chapter I of the Code of Federal Regulations is amended 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 paragraph (i)(104) to read as follows:

§63.14 Incorporation by reference

* * * * *

(i) * * *

(104) ASTM D6784–16, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), Approved March 1, 2016; IBR approved for §§63.9621(d); table 5 to subpart UUUUU; appendix A to subpart UUUUU.

**Subpart RRRRR—National Emission Standards for Hazardous Air Pollutants: Taconite
Iron Ore Processing**

3. Section 63.9583 is amended by:

- a. Revising paragraphs (a) through (c).
- b. Adding paragraph (f).

The revisions and addition read as follows:

§63.9583 When do I have to comply with this subpart?

(a) If you have an existing affected source, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart

that applies to you no later than October 30, 2006, except as specified in paragraph (f) of this section.

(b) If you have a new affected source and its initial startup date is on or before October 30, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you by October 30, 2003, except as specified in paragraph (f) of this section.

(c) If you have a new affected source and its initial startup date is after October 30, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you upon initial startup, except as specified in paragraph (f) of this section.

* * * * *

(f) If you have an affected indurating furnace that commenced construction before May 15, 2023, you must comply with the requirements in paragraphs (f)(1) through (7) of this section by **[INSERT DATE 3 YEARS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. If you have an affected indurating furnace that commenced construction or reconstruction on or after May 15, 2023, you must comply with the requirements in paragraphs (f)(1) through (7) of this section by **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]** or the date of initial startup, whichever is later.

(1) All applicable emission limits for mercury, hydrogen chloride, and hydrogen fluoride in Tables 2 and 3 to this subpart.

(2) All applicable operating limits in §63.9590(b)(5) through (8), established in accordance with §63.9622(g) through (i), for each control device used to comply with the mercury, hydrogen chloride, and hydrogen fluoride emission limits.

(3) All applicable compliance requirements in §§63.9600, 63.9610, 63.9623, 63.9625, and 63.9637(a).

(4) The applicable performance testing or continuous emissions monitoring system (CEMS) requirements for mercury in §§63.9620(k), 63.9621(d), and 63.9630.

(5) All applicable performance testing requirements in §§63.9620(l), 63.9621(d), and 63.9630.

(6) The requirements to install and maintain monitoring equipment in §63.6332(g) through (i) and the monitoring requirements in §§63.9631, 63.9633, and 63.9634 for each control device used to comply with the mercury, hydrogen chloride and hydrogen fluoride emission limits.

(7) The notification, reporting and recordkeeping requirements in §§63.9640, 63.9641, 63.9642, and 63.9643 applicable to the mercury, hydrogen chloride, and hydrogen fluoride emission standards.

4. Section 63.9590 is amended by:

- a. Revising the section heading.
- b. Revising paragraphs (a), (b) introductory text, (b)(1), (b)(2), (b)(3) introductory text, and (b)(4) introductory text.
- c. Redesignating paragraph (b)(5) as (b)(8).
- d. Adding new paragraph (b)(5).
- e. Adding paragraphs (b)(6) and (7).
- f. Revising new paragraph (b)(8).
- g. Revising paragraph (c).

The revisions and additions read as follows:

§63.9590 What emission limitations and operating limits must I meet?

(a) You must meet each emission limit in Tables 1 through 3 to this subpart that applies to you by the applicable compliance date specified in §63.9583.

(b) You must meet each applicable operating limit for control devices in paragraphs (b)(1) through (8) of this section that applies to you by the applicable compliance date specified in §63.9583. You are not required to establish and comply with operating limits for control devices used to reduce mercury emissions when you are using a CEMS to monitor and demonstrate compliance with the mercury emission limit in Table 2 to this subpart.

(1) Except as provided in paragraph (b)(2) of this section, for each wet scrubber applied to meet any particulate matter emission limit in Table 1 to this subpart, you must maintain the daily average pressure drop and daily average scrubber water flow rate at or above the minimum levels established in §63.9622.

(2) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, for each dynamic wet scrubber applied to meet any particulate matter emission limit in Table 1 to this subpart, you must maintain the daily average scrubber water flow rate and either the daily average fan amperage (a surrogate for fan speed as revolutions per minute) or the daily average pressure drop at or above the minimum levels established during the initial performance test. After January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for each dynamic wet scrubber applied to meet any particulate matter emission limit in Table 1 to this subpart, you must maintain the

daily average scrubber water flow rate and the daily average fan amperage (a surrogate for fan speed as revolutions per minute) at or above the minimum levels established in §63.9622.

(3) For each dry electrostatic precipitator (ESP) applied to meet any particulate matter emission limit in Table 1 to this subpart, you must meet the operating limits in paragraph (b)(3)(i) or (ii) of this section.

* * * * *

(4) For each wet ESP applied to meet any particulate matter emission limit in Table 1 to this subpart, you must meet the operating limits in paragraphs (b)(4)(i) through (iii) of this section.

* * * * *

(5) For each wet scrubber and wet ESP used to meet the hydrogen chloride and hydrogen fluoride emission limits in Table 3 to this subpart, you must maintain the daily average scrubber water flow rate and pH greater than or equal to the operating limits established for these parameters established in §63.9622.

(6) For each activated carbon injection (ACI) system used to meet the mercury emission limit in Table 2 to this subpart, you must maintain the daily average activated carbon injection rate greater than or equal to the average activated carbon injection rate established during the most recent performance test demonstrating compliance with the applicable emission limit. In addition, you must maintain the daily average carrier gas flow rate greater than or equal to the average carrier gas flow rate established during the most recent performance test demonstrating compliance with the applicable emission limit.

(7) For each dry sorbent injection (DSI) system used to meet the hydrogen chloride and hydrogen fluoride emission limits in Table 3 to this subpart, you must maintain the daily average

dry sorbent injection rate greater than or equal to the average dry sorbent injection rate established during the most recent performance test. demonstrating compliance with the applicable emission limit. In addition, you must maintain the daily average carrier gas flow rate greater than or equal to the average carrier gas flow rate established during the most recent performance test demonstrating compliance with the applicable emission limit.

(8) If you use any air pollution control device other than a baghouse, wet scrubber, dynamic scrubber, dry ESP, wet ESP, ACI, or DSI, you must submit a site-specific monitoring plan in accordance with §63.9631(f).

(c) You may petition the Administrator for approval of alternatives to the monitoring requirements in paragraphs (b)(1) through (7) of this section as allowed under §63.8(f) and as defined in §63.90.

5. Section 63.9600 is amended by revising paragraph (b) introductory text to read as follows:

§63.9600 What are my operation and maintenance requirements?

* * * * *

(b) You must prepare, and at all times, operate according to, a written operation and maintenance plan for each control device applied to meet any particulate matter emission limit in Table 1 to this subpart, mercury emission limit in Table 2 to this subpart, hydrogen chloride and hydrogen fluoride emission limit in Table 3 to this subpart, and to meet the requirement of each indurating furnace subject to good combustion practices (GCP). Each site-specific operation and maintenance plan must be submitted to the Administrator on or before the compliance date that is specified in §63.9583 for your affected source. The plan you submit must explain why the chosen practices (i.e., quantified objectives) are effective in performing corrective actions or

GCP in minimizing the formation of formaldehyde (and other products of incomplete combustion). The Administrator will review the adequacy of the site-specific practices and objectives you will follow and the records you will keep to demonstrate compliance with your Plan. If the Administrator determines that any portion of your operation and maintenance plan is not adequate, we can reject those portions of the plan, and request that you provide additional information addressing the relevant issues. In the interim of this process, you will continue to follow your current site-specific practices and objectives, as submitted, until your revisions are accepted as adequate by the Administrator. You must maintain a current copy of the operation and maintenance plan onsite, and it must be available for inspection upon request. You must keep the plan for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart. Each operation and maintenance plan must address the elements in paragraphs (b)(1) through (4) of this section.

* * * * *

6. Section 63.9610 is amended by revising paragraph (a) introductory text and adding paragraph (d).

The revision and addition read as follows:

§63.9610 What are my general requirements for complying with this subpart?

(a) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, you must be in compliance with the requirements in paragraphs (a)(1) through (6) of this section at all times, except during periods of startup, shutdown, and malfunction. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, for affected sources that commenced construction or reconstruction after September 25,

2019, you must be in compliance with the emission limitations, standards, and operation and maintenance requirements for the particulate matter emission standards in this subpart at all times.

* * * * *

(d) On and after the applicable compliance date specified in §63.9583(f), you must be in compliance with all applicable emission limitations for mercury, hydrogen chloride and hydrogen fluoride in Tables 2 and 3 to this subpart and with the requirements in paragraphs (d)(1) through (6) of this section at all times.

(1) All applicable operating limits in §63.9590(b)(5) through (8).

(2) All applicable operation and maintenance requirements in §63.9600 for control devices and monitoring equipment used to comply with the emissions limits.

(3) The requirements in §63.9631(j), if you use emissions averaging to demonstrate compliance with the mercury standards.

(4) The requirements in §63.9631(k), if you use continuous emissions monitoring system(s) (CEMS) to demonstrate compliance with the mercury standards.

(5) The requirements in §63.9634(n), if you elect to adjust the activated carbon injection rate based on the taconite pellet production rate.

(6) The notification, reporting and recordkeeping requirements in §§63.9640 through 63.9643.

7. Section 63.9620 is amended by:

a. Revising paragraphs (b)(2) and (f)(2).

b. Adding paragraphs (k) and (l).

The revisions and addition read as follows:

§63.9620 On which units and by what date must I conduct performance tests or other initial compliance demonstrations?

* * * * *

(b) * * *

(2) Initial performance tests must be completed no later than 180 calendar days after the compliance date specified in §63.9583. Performance tests conducted between October 30, 2003, and no later than 180 days after the corresponding compliance date can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of this subpart. For an indurating furnace with multiple stacks, the performance tests for all stacks must be completed within 7 calendar days of commencement of the performance tests, to the extent practicable, and the indurating furnace and associated control device (where applicable) operating characteristics must remain representative and consistent for the duration of the stack tests. If you determine that the performance tests cannot be completed within 7 calendar days, the Administrator must be notified within 24 hours of making that determination.

* * * * *

(f) * * *

(2) All emission units within a group must also have the same type of air pollution control device (e.g., wet scrubbers, dynamic wet scrubbers, rotoclones, multiclones, wet and dry ESP, and baghouses). You cannot group emission units with different air pollution control device types together for the purposes of this section.

* * * * *

(k) For each indurating furnace, you must demonstrate initial compliance with the mercury emission limits in Table 2 to this subpart in accordance with the procedures specified in either paragraph (k)(1) or (2).

(1) Complete an initial performance test on all stacks associated with each indurating furnace no later than 180 calendar days after the compliance date specified in §63.9583(f). Performance tests conducted between **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]** and 180 days after the corresponding compliance date can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of this subpart. For an indurating furnace with multiple stacks, the performance tests for all stacks must be completed within 7 calendar days of commencement of the performance tests, to the extent practicable, and the indurating furnace and associated control device (where applicable) operating characteristics must remain representative and consistent for the duration of the stack tests. If you determine that the performance tests cannot be completed within 7 calendar days, the Administrator must be notified within 24 hours of making that determination.

(2) You may use a 30-day rolling average of the 1-hour arithmetic average CEMS data. You must conduct a performance evaluation of each CEMS within 180 days of installation of the monitoring system. The initial performance evaluation must be conducted prior to collecting CEMS data that will be used for the initial compliance demonstration.

(l) For each indurating furnace, you must demonstrate initial compliance with the emission limits in Table 3 to this subpart by conducting initial performance tests for hydrogen chloride and hydrogen fluoride on all stacks associated with each indurating furnace. Initial performance tests must be completed no later than 180 calendar days after the compliance date

specified in §63.9583(f). Performance tests conducted between **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]** and 180 days after the corresponding compliance date can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of this subpart. For an indurating furnace with multiple stacks, the performance tests for all stacks must be completed within 7 calendar days of commencement of the performance tests, to the extent practicable, and the indurating furnace and associated control device (where applicable) operating characteristics must remain representative and consistent for the duration of the stack tests. If you determine that the performance tests cannot be conducted within 7 calendar days, the Administrator must be notified within 24 hours of making that determination.

8. Section 63.9621 is amended by:
 - a. Revising the section heading.
 - b. Revising paragraphs (a).
 - c. Revising paragraph (c) introductory text.
 - d. Adding paragraphs (d) and (e).

The revisions and additions read as follows:

§63.9621 What test methods and other procedures must I use to demonstrate initial compliance with the emission limits?

(a) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, you must conduct each performance test that applies to your affected source according to the requirements in §63.7(e)(1) and paragraphs (b) and (c) of this section. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up,

which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, you must conduct each performance test that applies to your affected source, including the initial performance tests for mercury required in §63.9620(k)(1) and the initial performance tests for hydrogen chloride and hydrogen fluoride required in §63.9620(l), under normal operating conditions of the affected source. The owner or operator may not conduct performance tests during periods of malfunction. 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. You must also conduct each performance test that applies to your affected source according to the requirements in paragraphs (b) and (c) of this section.

* * * * *

(c) For each ore dryer affected source and each indurating furnace affected source, you must determine compliance with the applicable emission limit for particulate matter in Table 1 to this subpart by following the test methods and procedures in paragraphs (c)(1) through (2) of this section.

* * * * *

(d) For each indurating furnace subject to the initial performance testing under §63.9620(k)(1) or §63.9620(l), you must determine compliance with the applicable emission limits for mercury, hydrogen chloride and hydrogen fluoride in Tables 2 and 3 to this subpart by following the test methods and procedures in paragraphs (d)(1) through (9) of this section. You

are not required to complete the initial performance test for mercury emissions when you are using a CEMS in accordance with paragraph (e) of this section.

(1) The furnace must be operated at or above 90 percent of capacity throughout the duration of the performance testing. If testing cannot be performed at or above 90 percent of capacity, you must provide an explanation for the lower production rate in your performance test plan. The lower production rate must be approved by the Administrator prior to beginning performance testing. For indurating furnaces that comply with the mercury emissions limit in Table 2 to this subpart by adjusting the activated carbon injection rate based on the taconite pellet production rate, you must complete the performance testing for mercury in accordance with the provisions in §63.9634(n).

(2) Use the methods specified in paragraphs (c)(1)(i) through (iv) of this section to select sampling port locations and the number of traverse points and to determine the volumetric flow rate, dry molecular weight, and moisture content of the stack gas.

(3) Determine the concentration of mercury for each stack using Method 29 or Method 30B in 40 CFR part 60, Appendix A, or the voluntary consensus standard ASTM D6784-16 (incorporated by reference, see §63.14). For Method 29 and ASTM D6784-16, the sample volume must be at least 1.7 dry standard cubic meters (dscm) (60 dry standard cubic feet) per run. For Method 30B, each test run must be at least one hour in duration.

(4) Determine the concentration of hydrogen chloride and hydrogen fluoride for each stack using Method 26A in 40 CFR part 60, Appendix A. Each test must consist of three separate runs. The minimum sample volume must be at least 2 dscm per run.

(5) During each stack test run, determine the weight of taconite pellets produced and calculate the emissions rate of each pollutant in pounds of pollutant per long ton (lb/LT) of

pellets produced for each test run. The weight of taconite pellets produced must be determined by measurement using weigh hoppers, belt weigh feeders, or weighed quantities in shipments, or calculated using the bulk density and volume measurements. If any measurement result for any pollutant is reported as below the method detection limit, use the method detection limit as the measured emissions level for that pollutant when calculating the emission rate. If the furnace has more than one stack, calculate the total emissions rate for each test run by summing the emissions across all stacks, as shown in Equation 4.

$$E_{f,i} = \sum_{s=1}^n \frac{C_s \times Q_s}{P_f} \quad (Eq. 4)$$

Where:

$E_{f,i}$ = Emissions rate for test run “i” for all emission stacks on indurating furnace “f”, lb/LT of pellets produced,

C_s = Emission rate for stack “s” measured during test run “i” on indurating furnace “f”, lb/dscf,

Q_s = Average volumetric flow rate of stack gas measured at stack “s” during test run “i” on indurating furnace “f”, dscf/hour;

P_f = Pellets produced in indurating furnace “f” during the stack test, LT; and

n = Number of emissions stacks on furnace “f”.

(6) Calculate the average emissions rate for each furnace using the three test runs, as show in Equation 5 of this section.

$$E_f = \frac{E_1 + E_2 + E_3}{3} \quad (Eq. 5)$$

Where:

E_f = Average emission rate for indurating furnace “f”, lb/LT of pellets produced,

E_1 = Emissions rate for run 1 for indurating furnace “f”, lb/LT of pellets produced,

E_2 = Emissions rate for run 2 for indurating furnace “f”, lb/LT of pellets produced, and

E_3 = Emissions rate for run 3 for indurating furnace “f”, lb/LT of pellets produced.

(7) For each indurating furnace constructed or reconstructed on or after May 15, 2023, determine compliance with the applicable mercury emission limit in Table 2 to this subpart by calculating the average emissions rate from the three test runs performed on the furnace using Equations 4 and 5 of this section.

(8) For each indurating furnace constructed or reconstructed before May 15, 2023, you must determine compliance with the applicable mercury emission limit in accordance with the procedures specified in either paragraph (d)(8)(i) or (ii) of this section.

(i) Determine compliance with the mercury limit for individual furnaces in Table 2 to this subpart by calculating the average mercury emissions rate for each affected indurating furnace using Equations 4 and 5 of this section, or

(ii) Determine compliance with the mercury limit for groups of indurating furnaces in Table 2 to this subpart in accordance with the method in §63.9623(d).

(9) Determine compliance with the applicable hydrogen chloride and hydrogen fluoride emission limits in Table 3 to this subpart by calculating the average emissions rate for each indurating furnace for the three test runs performed on the furnace using Equations 4 and 5 of this section.

(e) For each indurating furnace using mercury CEMS to demonstrate compliance with the applicable emission limits for mercury, you must determine compliance with the applicable mercury limit in Table 2 to this subpart by using a 30-day rolling average of the 1-hour

arithmetic average CEMS data, including CEMS data during startup and shutdown as defined in this subpart. The mercury CEMS must be installed, calibrated, maintained, and operated as accordance with the requirements in §63.9631(j).

9. Section 63.9622 is amended by:

a. Revising paragraphs (a)(2), (b)(2), (c) introductory text, (c)(1) introductory text, (c)(2), (d) and (e).

b. Adding paragraphs (g) through (i).

The revisions and additions read as follows:

§63.9622 What test methods and other procedures must I use to establish and demonstrate initial compliance with the operating limits?

(a) * * *

(2) Calculate and record the average pressure drop and scrubber water flow rate for each individual test run. Your operating limits are established as the lowest average pressure drop and the lowest average scrubber water flow rate corresponding to any of the three test runs, except as specified in paragraph (g)(2) of this section.

* * * * *

(b) * * *

(2) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, calculate and record the average scrubber water flow rate and either the average fan amperage or the average pressure drop for each individual test run. Your operating limits are established as the lowest average scrubber water flow rate and either the lowest average fan amperage or pressure drop value corresponding to any of the three test runs. After January 28, 2022, for affected sources that commenced construction or

reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, calculate and record the average scrubber water flow rate and the average fan amperage for each individual test run. Your operating limits are established as the lowest average scrubber water flow rate and the lowest average fan amperage value corresponding to any of the three test runs, except as specified in paragraph (g)(2) of this section.

(c) For a dry ESP subject to performance testing in §63.9620 and operating limits in §63.9590(b)(3), you must establish a site-specific operating limit according to the procedures in paragraphs (c)(1) or (2) of this section.

(1) If the operating limit for your dry ESP is a 6-minute average opacity of emissions value, then you must follow the requirements in paragraphs (c)(1)(i) through (iii) of this section.

* * * * *

(2) If the operating limit for your dry ESP is the daily average secondary voltage and daily average secondary current for each field, then you must follow the requirements in paragraphs (c)(2)(i) and (ii) of this section.

(i) Using the CPMS required in §63.9631(d)(2), measure and record the secondary voltage and secondary current for each dry ESP field every 15 minutes during each run of the particulate matter performance test.

(ii) Calculate and record the average secondary voltage and secondary current for each dry ESP field for each individual test run. Your operating limits are established as the lowest average secondary voltage and secondary current value for each dry ESP field corresponding to any of the three test runs.

(d) For a wet ESP subject to performance testing in §63.9620 and operating limit in §63.9590(b)(4), you must establish a site-specific operating limit according to the procedures in paragraphs (d)(1) and (2) of this section.

(1) Using the CPMS required in §63.9631(e), measure and record the parametric values in paragraphs (d)(1)(i) through (iii) of this section for each wet ESP field every 15 minutes during each run of the particulate matter performance test.

(i) Secondary voltage;

(ii) Water flow rate; and

(iii) Stack outlet temperature.

(2) For each individual test run, calculate and record the average value for each operating parameter in paragraphs (d)(1)(i) through (iii) of this section for each wet ESP field. Your operating limits are established as the lowest average value for each operating parameter of secondary voltage and water flow rate corresponding to any of the three test runs, and the highest average value for each stack outlet temperature corresponding to any of the three test runs.

(e) If you use an air pollution control device other than a wet scrubber, dynamic wet scrubber, dry ESP, wet ESP, or baghouse, and it is subject to performance testing in §63.9620, you must submit a site-specific monitoring plan in accordance with §63.9631(f). The site-specific monitoring plan must include the site-specific procedures for demonstrating initial and continuous compliance with the corresponding operating limits.

* * * * *

(g) For wet scrubbers and wet ESPs subject to performance testing in §63.9620(l) and operating limits for scrubber water flow rate and pH in §63.9590(b)(5), you must establish site-specific operating limits according to the procedures in paragraphs (g)(1) and (2) of this section.

(1) Using the CPMS required in §63.9631(b), measure and record the scrubber water flow rate and pH of the scrubber water effluent every 15 minutes during each run of the performance test for hydrogen chloride and hydrogen fluoride.

(2) Calculate and record the average scrubber water flow rate and average pH of the scrubber water effluent for each individual test run. Your operating limit must be established as the average scrubber water flow rate and average pH of the scrubber water of the three test runs. If a higher average flow rate is measured during the most recent PM performance test, the operating limit for the daily average scrubber water flow rate is the average scrubber water flow rate measured during the most recent PM performance test. If a higher average flow rate is measured during the most recent HCl and HF performance test, the operating limit for the daily average scrubber water flow rate is the average scrubber water flow rate measured during the most recent HCl and HF performance test.

(h) For ACI systems subject to performance testing in §63.9620(k)(1) and operating limits for activated carbon sorbent injection rate and carrier gas flow rate in §63.9590(b)(6), you must establish site-specific operating limits according to the procedures in paragraphs (h)(1) and (2) of this section.

(1) Using the CPMS required in §63.9631(b), measure and record the activated carbon injection rate and carrier gas flow rate every 15 minutes during each run of the performance test for mercury.

(2) Calculate and record the average activated carbon injection rate and carrier gas flow rate for each individual test run. Your operating limit must be established as the highest activated carbon injection rate and carrier gas flow rate of the three test runs.

(i) For DSI systems subject to performance testing in §63.9620(l) and operating limits for sorbent injection rate and carrier gas flow rate in §63.9590(b)(7), you must establish site-specific operating limits according to the procedures in paragraphs (i)(1) and (2) of this section.

(1) Using the CPMS required in §63.9631(b), measure and record the sorbent injection rate and carrier gas flow rate every 15 minutes during each run of the performance test for hydrogen chloride and hydrogen fluoride.

(2) Calculate and record the average sorbent injection rate and carrier gas flow rate for each individual test run. Your operating limit must be established as the highest average sorbent injection rate and carrier gas flow rate of the three test runs.

10. Section 63.9623 is amended by:

- a. Revising paragraph (a) introductory text.
- b. Adding paragraphs (a)(5) through (a)(8).
- c. Revising paragraphs (b)(3) introductory text and (b)(4).
- d. Redesignating paragraph (c) as (f).
- e. Adding new paragraph (c).
- f. Adding paragraphs (d) and (e).

The revisions and additions read as follows:

§63.9623 How do I demonstrate initial compliance with the emission limitations that apply to me?

(a) For each affected source subject to an emission limit in Tables 1 through 3 to this subpart, you must demonstrate initial compliance by meeting the emission limit requirements in paragraphs (a)(1) through (8) of this section by the compliance date specified in §63.9583.

* * * * *

(5) For indurating furnaces not using emissions averaging, the mercury emissions determined according to the procedures in §§63.9620(k)(1) or (2) and 63.9621(d), must not exceed the applicable emission limit in Table 2 to this subpart.

(6) For indurating furnaces that comply with the mercury emissions limit using emissions averaging, the average mercury emissions determined according to the procedures in §§63.9620(k)(1) or (2), 63.9621(d) and 63.9634(m), must not exceed the applicable emission limit in Table 2 to this subpart.

(7) For indurating furnaces that comply with the mercury emissions limit by adjusting the activated carbon injection rate based on the taconite pellet production rate, the mercury emissions determined according to the procedures in §§63.9620(k)(1) or (2), 63.9621(d) or (e), and 63.9634(n), must not exceed the applicable emission limit in Table 2 to this subpart.

(8) For indurating furnaces, the hydrogen chloride and hydrogen fluoride emissions determined according to the procedures in §§63.9620(l) and 63.9621(d), must not exceed the applicable emission limit in Table 3 to this subpart.

(b) * * *

(3) For each dry ESP subject to performance testing in §63.9620 and one of the operating limits in §63.9590(b)(3), you must meet the requirements in paragraph (b)(3)(i) or (ii) of this section.

* * * * *

(4) For each wet ESP subject to performance testing in §63.9620 and operating limits for secondary voltage, water flow rate, and stack outlet temperature in §63.9590(b)(4), you have established appropriate site-specific operating limits and have a record of the secondary voltage,

water flow rate, and stack outlet temperature measured during the performance test in accordance with §63.9622(d).

* * * * *

(c) Except as specified in paragraph (e) of this section, you must demonstrate initial compliance with the emission limits in Tables 2 and 3 to this subpart, by meeting the operating limit requirements in paragraphs (c)(1) through (3) of this section.

(1) For each wet scrubber and wet ESP subject to performance testing in §63.9620(k) and operating limits for scrubber water flow rate and pH in §63.9590(b)(5), you have established appropriate site-specific operating limits and have a record of the scrubber water flow rate and pH measured during the performance test in accordance with §63.9622(g).

(2) For each ACI subject to performance testing in §63.9620(k) and operating limits for activated carbon injection rate and carrier gas flow rate in §63.9590(b)(6), you have established appropriate site-specific operating limits and have a record of the activated carbon injection rate and carrier gas flow rate measured during the performance test in accordance with

§63.9622(i). (3) For each DSI subject to performance testing in §63.9620(k) and operating limits for sorbent injection rate and carrier gas flow rate in §63.9590(b)(7), you have established appropriate site-specific operating limit and have a record of the sorbent injection rate and carrier gas flow rate measured during the performance test in accordance with §63.9622(h).

(d) If you elect to comply with the mercury limit in Table 2 to this subpart using emissions averaging for indurating furnaces constructed or reconstructed before May 15, 2023, you must comply with the requirements in paragraphs (d)(1) through (4) of this section.

(1) Before submitting the implementation plan required in paragraph (d)(3) of this section, you must complete the mercury stack testing required in §63.9620(k)(1) or install,

calibrate, and operate a mercury CEMS pursuant to §63.9620(k)(2) and paragraph (e) of this section for all indurating furnaces you wish to include in the mercury emission average.

(2) You must develop and submit to the applicable regulatory authority for review and approval, an implementation plan for mercury emission averaging no later than 180 days before the date you intend to demonstrate compliance using the emission averaging option. You must include the information contained in paragraphs (d)(2)(i) through (iii) of this section in your implementation plan.

(i) Identification of all indurating furnaces in the averaging group, including the typical taconite pellet production rate, control technology installed, and types of fuel(s) that will be burned.

(ii) The mercury emission rate for each furnace for each of the fuels identified in paragraph (d)(2)(i) of this section.

(iii) The date on which you are requesting emission averaging to commence.

(3) The regulatory authority shall review and approve or disapprove the plan according to the following criteria:

(i) Whether the content of the plan includes all the information specified in paragraph (d)(2) of this section, and

(ii) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

(4) The applicable regulatory authority shall not approve an emission averaging implementation plan containing any of the following provisions:

(i) Averaging that includes indurating furnaces constructed or reconstructed on or after May 15, 2023, or

(ii) Averaging between indurating furnaces located at different facilities.

(e) If you elect to demonstrate compliance with the mercury limit in Table 2 to this subpart using a mercury CEMS, you must calculate the 30-day rolling average of 1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown, calculated using equation 19–19 in section 12.4.1 of EPA Reference Method 19 at appendix A–7 of 40 CFR part 60. The 1-hour arithmetic averages for CEMS must be calculated using the data points required under §63.8(c)(4)(ii).

* * * * *

11. Section 63.9630 is amended by revising paragraphs (b) and (e)(2).

The revisions read as follows:

§63.9630 When must I conduct subsequent performance tests?

* * * * *

(b) You must conduct subsequent performance tests on all stacks associated with indurating furnaces to demonstrate continued compliance with the indurating furnace emission limits in Tables 1 through 3 to this subpart according to the schedule developed by your permitting authority and shown in your title V permit, but no less frequent than twice per 5-year permit term. If a title V permit has not been issued, you must submit a testing plan and schedule, containing the information specified in paragraph (e) of this section, to the permitting authority for approval. For an indurating furnace with multiple stacks, the performance tests for all stacks must be conducted within 7 calendar days of commencement of the performance tests, to the extent practicable, and the indurating furnace and associated control device (where applicable) operating characteristics must remain representative and consistent for the duration of the stack tests. If you determine that the performance tests cannot be completed within 7 calendar days,

the Administrator must be notified within 24 hours of making that determination. Performance testing for mercury is not required for furnaces using CEMS to demonstrate compliance with the mercury emission limits in Table 2 to this subpart.

* * * * *

(e) * * *

(2) A schedule indicating when you will conduct subsequent performance tests for particulate matter, mercury, hydrogen chloride and hydrogen fluoride for each of the emission units.

12. Section 63.9631 is amended by:

- a. Revising paragraph (d) introductory text, (d)(2), and (e).
- b. Redesignating paragraph (f) as (i).
- c. Adding new paragraph (f).
- d. Adding paragraphs (g) and (h).
- e. Revising new paragraph (i).
- f. Adding paragraphs (j) and (k).

The revisions and additions read as follows:

§63.9631 What are my monitoring requirements?

* * * * *

(d) For each dry ESP subject to the operating limits in §63.9590(b)(3), you must follow the monitoring requirements in paragraph (d)(1) or (2) of this section.

* * *

(2) If the operating limit you choose to monitor is average secondary voltage and average secondary current for each dry ESP field in accordance with §63.9590(b)(3)(ii), you must install,

operate, and maintain a CPMS according to the requirements in §63.9632(b) through (e) and monitor the daily average secondary voltage and daily average secondary current according to the requirements in §63.9633.

(e) For each wet ESP subject to the operating limits in §63.9590(b)(4), you must install, operate, and maintain a CPMS according to the requirements in §63.9632(b) through (e) and monitor the daily average secondary voltage, daily average stack outlet temperature, and daily average water flow rate according to the requirements in §63.9633.

(f) For each wet scrubber and wet ESP subject to the operating limits in §63.9590(b)(5), you must install, operate, and maintain a CPMS according to the requirements in §63.9632(g) and monitor the daily average scrubber water flow rate and pH of the scrubber water effluent.

(g) For each ACI system subject to the operating limits in §63.9590(b)(6), you must install, operate, and maintain a CPMS according to the requirements in §63.9632(h) and (i) and monitor the daily average activated carbon injection rate and carrier gas flow rate.

(h) For each DSI system subject to the operating limits in §63.9590(b)(7), you must install, operate, and maintain a CPMS according to the requirements in §63.9632(h) and (i) and monitor the daily average sorbent injection rate and carrier gas flow rate.

(i) If you use any air pollution control device other than a baghouse, wet scrubber, dry ESP, wet ESP, DSI, or ACI, you must submit a site-specific monitoring plan that includes the information in paragraphs (i)(1) through (4) of this section. The monitoring plan is subject to approval by the Administrator. You must maintain a current copy of the monitoring plan onsite, and it must be available for inspection upon request. You must keep the plan for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart.

(1) A description of the device.

(2) Test results collected in accordance with §63.9621 verifying the performance of the device for reducing emissions of particulate matter, mercury, hydrogen chloride, and hydrogen fluoride to the atmosphere to the levels required by this subpart.

(3) A copy of the operation and maintenance plan required in §63.9600(b).

(4) Appropriate operating parameters that will be monitored to maintain continuous compliance with the applicable emission limitation(s).

(j) If you elect to comply with the mercury limit in Table 2 to this subpart using emissions averaging in accordance with an implementation plan approved under the provisions in §63.9623(d) or you elect to adjust the activated carbon injection rate based on the taconite pellet production rate in accordance with the procedures in §63.9634(n), you must determine and record the mass of taconite pellets produced each month by each furnace included in the emissions averaging group. The weight of taconite pellets produced must be determined by measurement using weigh hoppers, belt weigh feeders, or weighed quantities in shipments, or calculated using the bulk density and volume measurements.

(k) If you elect to demonstrate compliance with the mercury emissions limits in Table 2 to this subpart using a CEMS to measure mercury emissions, you must comply with the requirements in (k)(1) through (5).

(1) Notify the Administrator one month before starting use of the CEMS and notify the Administrator 180-days before ceasing use of the CEMS.

(2) Each CEMS must be installed, certified, calibrated, and maintained according to the requirements of performance specifications 6 and 12A of 40 CFR part 60, appendix B, and quality assurance procedure 6 of 40 CFR part 60, appendix F.

(3) Operate the mercury CEMS in accordance with performance specification 12A of 40 CFR part 60, appendix B. The duration of the performance test must be 30 operating days. For each day in which the unit operates, you must obtain hourly mercury concentration data, and stack gas volumetric flow rate data.

(4) You must complete the initial performance evaluation of the CEMS within 180 days after notifying the Administrator and before starting to use the CEMS data in lieu of performance testing and monitoring operating parameters to demonstrate compliance.

(5) Collect CEMS hourly averages for all operating hours on a 30-day rolling average basis. The one-hour arithmetic averages, expressed in units of lb/LT, must be used to calculate 30-day rolling average emissions to determine compliance with the applicable emission limit in Table 2 to this subpart.

13. Section 63.9632 is amended by:

- a. Revising paragraphs (f) introductory text and (f)(2).
- b. Adding paragraphs (g) through (i).

The revisions and additions read as follows:

§63.9632 What are the installation, operation, and maintenance requirements for my monitoring equipment?

* * * * *

(f) For each dry ESP subject to the opacity operating limit in §63.9590(b)(3)(i), you must install, operate, and maintain each COMS according to the requirements in paragraphs (f)(1) through (4) of this section.

* * * * *

(2) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, you must develop and implement a quality control program for operating and maintaining each COMS according to §63.8. At a minimum, the quality control program must include a daily calibration drift assessment, quarterly performance audit, and annual zero alignment of each COMS. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, you must develop and implement a quality control program for operating and maintaining each COMS according to §63.8(a) and (b), (c)(1)(ii), (c)(2) through (8), (d)(1) and (2), and (e) through (g) and Procedure 3 in appendix F to 40 CFR part 60. At a minimum, the quality control program must include a daily calibration drift assessment, quarterly performance audit, and annual zero alignment of each COMS.

* * * * *

(g) For each pH measurement device, in addition to the requirements in paragraphs (b) through (e) of this section, you must meet the requirements in paragraphs (g)(1) through (4) of this section.

(1) The minimum accuracy of the pH measurement device must be ± 0.2 pH units.

(2) Locate the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(3) Ensure the sample is properly mixed and representative of the fluid to be measured.

(4) Check the pH meter's calibration on at least two points every 8 hours of process operation.

(h) For each mass flow rate monitor used for measuring the sorbent or activated carbon injection rate, in addition to the requirements in paragraphs (b) through (e) of this section, you must meet the requirements of (h)(1) through (4) of this section.

(1) The minimum accuracy of the mass flow rate monitor must be ± 5 percent over the normal range of flow measured.

(2) Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.

(3) Install and calibrate the device in accordance with manufacturer's procedures and specifications.

(4) At least annually, conduct a performance evaluation of the injection rate monitoring system in accordance with your monitoring plan.

(i) For each carrier gas flow rate monitor, in addition to the requirements in paragraphs (b) through (e) of this section, you must meet the requirements of (i)(1) through (4) of this section.

(1) The minimum accuracy of the gas flow rate monitor must be ± 5 percent over the normal range of flow measured or 280 liters per minute (10 cubic feet per minute), whichever is greater.

(2) Locate the device in a position(s) that provides a representative measurement of the carrier gas flow rate.

(3) Install and calibrate the device in accordance with manufacturer's procedures and specifications.

(4) At least annually, conduct a performance evaluation of the carrier gas flow rate monitoring system in accordance with your monitoring plan.

14. Section 63.9634 is amended by:

- a. Revising paragraphs (a), (e)(4), (g) introductory text, (g)(1) introductory text, (g)(1)(iii), (g)(2) introductory text, (g)(2)(ii), (g)(2)(iv), (h) introductory text, (h)(2), and (h)(4).
- b. Redesignating paragraph (i) as (k).
- c. Adding new paragraph (i).
- d. Revising new paragraph (k).
- e. Redesignating paragraph (j) as (l).
- f. Adding new paragraph (j).
- g. Revising new paragraph (l).
- h. Adding paragraphs (m) and (n).

The revisions and additions read as follows:

§63.9634 How do I demonstrate continuous compliance with the emission limitations that apply to me?

(a) For each affected source subject to an emission limit in Table 1 to this subpart, you must demonstrate continuous compliance by meeting the requirements in paragraphs (b) through (h) of this section.

* * * * *

(e) * * *

(4) If the daily average pressure drop or daily average scrubber water flow rate is below the operating limits established for a corresponding emission unit or group of similar emission units, you must then follow the corrective action procedures in paragraph (l) of this section.

(f) * * *

(4) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, if the daily average scrubber water flow rate, daily average fan amperage, or daily average pressure drop is below the operating limits established for a corresponding emission unit or group of similar emission units, you must then follow the corrective action procedures in paragraph (l) of this section. After January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, if the daily average scrubber water flow rate or daily average fan amperage, is below the operating limits established for a corresponding emission unit or group of similar emission units, you must then follow the corrective action procedures in paragraph (l) of this section.

(g) For each dry ESP subject to operating limits in §63.9590(b)(3), you must demonstrate continuous compliance by completing the requirements of paragraph (g)(1) or (2) of this section.

(1) If the operating limit for your dry ESP is a 6-minute average opacity of emissions value, then you must follow the requirements in paragraphs (g)(1)(i) through (iii) of this section.

* * * * *

(iii) If the 6-minute average opacity of emissions is above the operating limits established for a corresponding emission unit, you must then follow the corrective action procedures in paragraph (l) of this section.

(2) If the operating limit for your dry ESP is the daily average secondary voltage and daily average secondary current for each field, then you must follow the requirements in paragraphs (g)(2)(i) through (iv) of this section.

* * * * *

(ii) Operating and maintaining each dry ESP CPMS according to §63.9632(b) and recording all information needed to document conformance with these requirements.

* * * * *

(iv) If the daily average secondary voltage or daily average secondary current for each field is below the operating limits established for a corresponding emission unit, you must then follow the corrective action procedures in paragraph (l) of this section.

(h) For each wet ESP subject to the operating limits for secondary voltage, stack outlet temperature, and water flow rate in §63.9590(b)(4), you must demonstrate continuous compliance by completing the requirements of paragraphs (h)(1) through (4) of this section.

* * * * *

(2) Operating and maintaining each wet ESP CPMS according to §63.9632(b) and recording all information needed to document conformance with these requirements.

* * * * *

(4) If the daily average secondary voltage, stack outlet temperature, or water flow rate does not meet the operating limits established for a corresponding emission unit, you must then follow the corrective action procedures in paragraph (l) of this section.

(i) For each affected indurating furnace subject to a hydrogen chloride and hydrogen fluoride emission limit in Table 3 to this subpart, you must demonstrate continuous compliance by meeting the requirements in paragraphs (i)(1) and (2) of this section.

(1) For each wet scrubber and wet ESP subject to the operating limits for scrubber water flow rate and pH in §63.9590(b)(5), you must demonstrate continuous compliance by completing the requirements of paragraphs (i)(1)(i) through (iv) of this section.

(i) Maintaining the daily average scrubber water flow rate and daily average pH of the scrubber water effluent at or above the minimum level established during the most recent performance test. If a higher average flow rate is measured during the last PM performance test, the operating limit for daily average scrubber water flow rate is the highest average scrubber water flow rate measured during the last PM performance test.

(ii) Operating and maintaining each of the CPMS used to measure scrubber water flow rate and pH according to §63.9632(g) and recording all information needed to document conformance with these requirements.

(iii) Collecting and reducing monitoring data for scrubber water flow rate and pH according to §63.9632(c) and recording all information needed to document conformance with these requirements.

(iv) If the daily average scrubber water flow rate or daily average pH is below the operating limits established for control device, you must follow the corrective action procedures in paragraph (l) of this section.

(2) For each DSI subject to the operating limits for sorbent injection rate and carrier gas flow rate in §63.9590(b)(7), you must demonstrate continuous compliance by completing the requirements of paragraphs (i)(2)(i) through (iv) of this section.

(i) Maintain the daily average sorbent injection rate and carrier gas flow rate at or above the minimum level established during the most recent performance test.

(ii) Operate and maintain each CPMS used to measure the sorbent injection rate according to §63.9632(h) and the carrier gas flow rate according to §63.9632(i) and recording all information needed to document compliance with these requirements.

(iii) Collect and reduce monitoring data for the sorbent injection rate and carrier gas flow rate according to §63.9632(c) and recording all information needed to document compliance with these requirements.

(iv) If the daily average the sorbent injection rate or carrier gas flow rate is below the operating limit established for the control device, you must follow the corrective action procedures in paragraph (l) of this section.

(j) For each affected indurating furnace using ACI to comply with the mercury emission limit in Table 2 to this subpart, you must demonstrate continuous compliance by meeting the requirements of paragraphs (j)(1) or (2) of this section.

(1) If you use CEMS to demonstrate compliance, you must comply with the requirements in paragraphs (j)(1)(i) and (ii) of this section.

(i) You must operate a mercury CEMS in accordance with performance specification 12A at 40 CFR part 60, appendix B; these monitoring systems must be quality assured according to procedure 5 of 40 CFR 60, appendix F. You must demonstrate compliance with the mercury emissions limit using a 30-day rolling average of these 1-hour mercury concentrations or mass emissions rates, including CEMS data during startup and shutdown as defined in this subpart, calculated using equation 19–19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A–7 of this part.

(ii) Owners or operators using a mercury CEMS to determine mass emission rate must install, operate, calibrate and maintain an instrument for continuously measuring and recording the mercury mass emissions rate to the atmosphere according to the requirements of performance specification 6 at 40 CFR part 60, appendix B and conducting an annual relative accuracy test of

the continuous emission rate monitoring system according to section 8.2 of performance specification 6.

(2) If you do not use CEMS to demonstrate compliance, you must demonstrate continuous compliance by meeting the requirements of paragraphs (j)(2)(i) through (iv) of this section.

(i) Maintain the daily average activated carbon injection rate and carrier gas flow rate at or above the minimum level established during the most recent performance test.

(ii) Operate and maintain each CPMS used to measure the activated carbon injection rate according to §63.9632(h) and the carrier gas flow rate according to §63.9632(i), and record all information needed to document compliance with these requirements.

(iii) Collect and reduce monitoring data for the activated carbon injection rate and carrier gas flow rate according to §63.9632(c) and record all information needed to document conformance with these requirements.

(iv) If the daily average of the activated carbon injection rate or carrier gas flow rate is below the operating limit established for the control device, you must follow the corrective action procedures in paragraph (l) of this section.

(k) If you use an air pollution control device other than a wet scrubber, dynamic wet scrubber, dry ESP, wet ESP, DSI, ACI, or baghouse, you must submit a site-specific monitoring plan in accordance with §63.9631(f). The site-specific monitoring plan must include the site-specific procedures for demonstrating initial and continuous compliance with the corresponding operating limits.

(1) If the daily average operating parameter value for an emission unit or group of similar emission units does not meet the corresponding established operating limit, you must then follow the procedures in paragraphs (1)(1) through (4) of this section.

(1) You must initiate and complete initial corrective action within 10 calendar days and demonstrate that the initial corrective action was successful. During any period of corrective action, you must continue to monitor, and record all required operating parameters for equipment that remains in operation. After the initial corrective action, if the daily average operating parameter value for the emission unit or group of similar emission units meets the operating limit established for the corresponding unit or group, then the corrective action was successful and the emission unit or group of similar emission units is in compliance with the established operating limits.

(2) If the initial corrective action required in paragraph (1)(1) of this section was not successful, then you must complete additional corrective action within 10 calendar days and demonstrate that the subsequent corrective action was successful. During any period of corrective action, you must continue to monitor, and record all required operating parameters for equipment that remains in operation. If the daily average operating parameter value for the emission unit or group of similar emission units meets the operating limit established for the corresponding unit or group, then the corrective action was successful, and the emission unit or group of similar emission units is in compliance with the established operating limits.

(3) If the second attempt at corrective action required in paragraph (1)(2) of this section was not successful, then you must repeat the procedures of paragraph (1)(2) of this section until the corrective action is successful. If the third attempt at corrective action is unsuccessful, you

must conduct another performance test in accordance with the procedures in §63.9622(f) and report to the Administrator as a deviation the third unsuccessful attempt at corrective action.

(4) After the third unsuccessful attempt at corrective action, you must submit to the Administrator the written report required in paragraph (l)(3) of this section within 5 calendar days after the third unsuccessful attempt at corrective action. This report must notify the Administrator that a deviation has occurred and document the types of corrective measures taken to address the problem that resulted in the deviation of established operating parameters and the resulting operating limits.

(m) If you elect to comply with the mercury limit in Table 2 to this subpart using emissions averaging in accordance with an implementation plan approved under the provisions in §63.9623(d), you must comply with the requirements in paragraphs (m)(1) through (5) of this section.

(1) For furnaces included in the emissions averaging group that do not use mercury CEMS, you must comply with the requirements in paragraph (m)(1)(i) or (ii) as applicable.

(i) For furnaces equipped with ACI systems, you must comply with the requirements in paragraph (j) of this section.

(ii) For furnaces equipped with a mercury control device or method other than ACI, you must comply with your site-specific monitoring plan in accordance with the requirements in paragraph (k) of this section.

(2) For furnaces included in the emissions averaging group that use mercury CEMS, you must comply with the requirements in paragraph (i)(1) of this section.

(3) Calculate the monthly production-weighted average emission rate using either the mercury CEMS data or mercury emission rate determined during the last performance test and

the actual taconite pellet production data for each furnace included in the emissions averaging option, as shown in Equation 6 of this section.

$$E_g = \frac{\sum_{f=1}^n (E_f \times P_f)}{\sum_{f=1}^n P_f} \quad (Eq. 6)$$

Where:

E_g = Monthly production-weighted average mercury emission rate for month “g” for the group of indurating furnaces, lb/LT of pellets produced,

E_f = Average mercury emission rate for furnace “f”, as determined using either mercury CEMS data or the emission rate determined during the last compliance stack test and calculated using Equation 5 of §63.9621(d)(7)(i), lb/LT of pellets produced,

P_f = Total monthly production of finished taconite pellets for furnace “f”, in LT, and

n = Number of furnaces in the averaging group.

(4) Until 12 monthly weighted average emission rates have been accumulated, the monthly weighted average emissions rate, calculated as shown in paragraph (m)(3) of this section, must not exceed the mercury emission limit in Table 3 of this subpart in any calendar month.

(5) After 12 monthly weighted average emission rates have been accumulated, for each subsequent calendar month, you must use Equation 7 of this section to calculate the 12-month rolling average of the monthly weighted average emission rates for the current month and the previous 11 months. The 12-month rolling weighted average emissions rate for the furnaces included in the group must not exceed the mercury emission limit in Table 3 of this subpart.

$$E_{avg} = \frac{\sum_{i=1}^{12} E_i}{12} \quad Eq. 7$$

Where:

E_{avg} = 12-month rolling average emission rate, lb/LT.

E_i = Monthly weighted average for month “i” calculated as shown in Equation 6 of this section.

(n) You may elect to demonstrate continuous compliance with the mercury limit in Table 2 to this subpart by adjusting the activated carbon injection rate based on the taconite pellet production rate. You must comply with the requirements in paragraphs (n)(1) through (7) of this section.

(1) Measure the activated carbon injection and mercury emissions rate at a minimum of three different production levels corresponding to the maximum, minimum and median finished taconite pellet production rates, using the methods specified in §63.9620(k).

(2) Develop a correlation curve by plotting the production rate and corresponding carbon injection rate for the maximum, median and minimum production rates. Use only data where the mercury emission rate is below the applicable mercury emissions standard in Table 2 to this subpart. Plot the production rates as the independent (or x) variable and the activated carbon injection rate as the dependent (or y) variable for each pellet production rate. Construct the graph by drawing straight line segments between each point plotted.

(3) You must develop and submit to the applicable regulatory authority for review and approval, an implementation plan no later than 180 days before the date you intend to demonstrate compliance by adjusting the activated carbon injection rate based on the taconite pellet production. You must include the information listed in paragraphs (n)(3)(i) through (iv) of this section in your implementation plan.

(i) Identification of the indurating furnace, including the typical maximum and minimum taconite pellet production rate, mercury control technology installed, and types of fuel(s) that will be burned.

(ii) The mercury emissions and activated carbon injection rates at maximum, median and minimum taconite pellet production rates, and the methods used to measure the mercury emissions, activated carbon injection rate and taconite pellet production.

(iii) The correlation curve developed in paragraph (n)(2) of this section.

(iv) The date on which you are requesting to commence adjusting the activated carbon rate based on the taconite production rate.

(4) Install, calibrate, maintain, and operate a CPMS to monitor and record the activated carbon injection rate and taconite pellet production rate.

(5) Maintain the carbon injection rate at or above the rate established by the correlation curve corresponding to the taconite pellet production rate. If the taconite pellet production rate drops below the minimum rate established in paragraph (n)(3) of this section, you must maintain the activated carbon injection rate at or above the rate established for the minimum taconite pellet production rate.

(6) Keep records of the activated carbon injection rate and taconite pellet production rate for each hour of operation in order to demonstrate that the activated carbon injection rate remains in compliance with paragraph (n)(5) of this section.

(7) Establish a new correlation curve at least twice per 5-year permit term.

15. Section 63.9636 is amended by revising paragraph (a) introductory text.

The revision reads as follows:

§63.9636 How do I demonstrate continuous compliance with the operation and maintenance requirements that apply to me?

(a) For each control device used to comply with an emission standard in §63.9590(a), you must demonstrate continuous compliance with the operation and maintenance requirements in §63.9600(b) by completing the requirements of paragraphs (a)(1) through (4) of this section.

* * * * *

16. Section 63.9637 is amended by revising paragraph (a).

The revision reads as follows:

§63.9637 What other requirements must I meet to demonstrate continuous compliance?

(a) *Deviations.* You must report each instance in which you did not meet each emission limitation in Tables 1 through 3 to this subpart that applies to you. You also must report each instance in which you did not meet the work practice standards in §63.9591 and each instance in which you did not meet each operation and maintenance requirement in §63.9600 that applies to you. These instances are deviations from the emission limitations, work practice standards, and operation and maintenance requirements in this subpart. These deviations must be reported in accordance with the requirements in §63.9641.

* * * * *

17. Section 63.9640 is amended by adding paragraphs (f) and (g).

The additions read as follows:

§63.9640 What notifications must I submit and when?

* * * * *

(f) If you elect to use CEMS to demonstrate compliance with the mercury standards in Table 2 to this subpart, you must submit a notification of intent to use CEMS at least one month

prior to making the change. If you are currently using CEMS to demonstrate compliance with the mercury standards, you must submit a notification of intent to cease using CEMS to demonstrate compliance at least 180 days prior to making the change.

(g) If you elect to use the mercury emissions averaging compliance option, you must submit a notification of intent at least 180 days prior to making the change. If you are currently using the mercury emissions averaging compliance option, you must submit a notification of intent to cease using emissions averaging at least 30 days prior to making the change.

18. Section 63.9641 is amended by:

a. Revising paragraph (b)(6), (b)(8) introductory text, (b)(8)(iii), (v), (vi), (vii), (c), (e) and (f)(3).

b. Adding paragraph (i).

The revisions and additions read as follows:

§63.9641 What reports must I submit and when?

* * * * *

(b) * * *

(6) If there were no periods during which a continuous monitoring system (including a CPMS, COMS, or CEMS) was out-of-control as specified in §63.8(c)(7), then provide a statement that there were no periods during which a continuous monitoring system was out-of-control during the reporting period.

* * * * *

(8) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, 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 and the information in paragraphs (b)(8)(i) through (xi) of this section. This includes periods of startup, shutdown, and malfunction. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for each deviation from an emission limitation occurring at an affected source where you are using a continuous monitoring system (including a CPMS, COMS, or CEMS) to comply with the emission limitation in this subpart, you must include the information in paragraphs (b)(1) through (4) of this section and the information in paragraphs (b)(8)(i) through (xi) of this section.

* * * * *

(iii) The start date, start time, and duration that each continuous monitoring system was out-of-control, including the information in §63.8(c)(8).

* * * * *

(v) The total duration of all deviations for each Continuous Monitoring System (CMS) during the reporting period, the total operating time in hours of the affected source during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(vi) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, a breakdown of the total duration of the deviations during the reporting period including those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes. After January 25, 2021, for affected sources that commenced construction or reconstruction on or

before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, 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.

(vii) The total duration of continuous monitoring system downtime for each continuous monitoring system during the reporting period, the total operating time in hours of the affected source during the reporting period, and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.

* * * * *

(c) Submitting compliance reports electronically. Beginning on January 25, 2021, submit all subsequent compliance reports to the EPA via CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as confidential business information (CBI). Anything submitted using CEDRI cannot later be claimed to be CBI. 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 report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. Although we do not expect persons to assert a claim of CBI, if persons wish to assert a CBI claim, 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. Clearly mark the part or all of the information that you claim to be CBI.

Information not marked as CBI may be authorized for public release without prior notice.

Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. Submit the file following the procedures in paragraph (c)(1) or (2) of this section. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (c). All CBI claims must be asserted at the time of submission. Furthermore, under CAA section 114(c) emissions data is not entitled to confidential treatment, and EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, if you had a 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 according to the requirements in §63.10(d)(5)(ii). After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, an immediate startup, shutdown, and malfunction report is not required.

(1) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqpscbi@epa.gov, and as described above, should include clear CBI markings and be flagged to the attention of the Taconite Iron Ore Processing Sector Lead. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you

do not have your own file sharing service, please email oaqpscbi@epa.gov to request a file transfer link.

(2) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: U.S. EPA, Attn: OAQPS Document Control Officer and Taconite Iron Ore Processing Sector Lead, Mail Drop: C404-02, 109 T.W. Alexander Drive, P.O. Box 12055, RTP, NC 27711. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

* * * * *

(e) Immediate corrective action report. If you had three unsuccessful attempts of applying corrective action as described in §63.9634(l) on an emission unit or group of emission units, then you must submit an immediate corrective action report. Within 5 calendar days after the third unsuccessful attempt at corrective action, you must submit to the Administrator a written report in accordance with §63.9634(l)(3) and (4). This report must notify the Administrator that a deviation has occurred and document the types of corrective measures taken to address the problem that resulted in the deviation of established operating parameters and the resulting operating limits.

(f) * * *

(3) Confidential business information (CBI).

(i) The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information submitted under paragraph (f)(1) or (2) of this section, you must submit a complete file, including information claimed to be CBI, to the EPA.

(ii) The file must be generated using the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website.

(iii) Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

(iv) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqpscbi@epa.gov, and as described above, should include clear CBI markings and be flagged to the attention of the Group Leader, Measurement Policy Group. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqpscbi@epa.gov to request a file transfer link.

(v) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: U.S. EPA, Attn: OAQPS Document Control Officer and Measurement Policy Group Lead, Mail Drop: C404-02, 109 T.W. Alexander Drive, P.O. Box 12055, RTP, NC 27711. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

(vi) All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available

to the public. Thus, emissions data will not be protected as CBI and will be made publicly available.

(vii) You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described in §63.9(k).

* * * * *

(i) If you use CEMS to demonstrate compliance with the mercury emissions limits in Table 2 to this subpart, you must submit the results of the performance evaluation following the procedure specified in either paragraph (i)(1) or (2) of this section within 60 days after the date of completing each CEMS performance evaluation (as defined in §63.2).

(1) For performance evaluations of continuous monitoring systems measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the evaluation, you must submit the results of the performance evaluation to the EPA via the CEDRI. Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT or an alternate file format consistent with the XML schema listed on the EPA's ERT Web site. If you claim that some of the performance evaluation information being transmitted is CBI, you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed 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 ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this section.

(2) For any performance evaluations of continuous monitoring systems measuring RATA pollutants that are not supported by the EPA's ERT as listed on the ERT Web site at the time of the evaluation, you must submit the results of the performance evaluation to the Administrator at the appropriate address listed in §63.13.

19. Section 63.9642 is amended by:

- a. Revising paragraph (b) introductory text.
- b. Adding paragraphs (b)(5), (d), (e) and (f).

The revisions and additions read as follows:

§63.9642 What records must I keep?

(a) * * *

(b) For each COMS and CEMS, you must keep the records specified in paragraphs (b)(1) through (5) of this section.

* * * * *

(5) If you use mercury CEMS to demonstrate compliance with the mercury emission standard in Table 2 of the subpart in accordance with §63.9623(e), records of requests for alternatives to the relative accuracy test for CEMS as required in §63.8(f)(6)(i).

* * * * *

(d) If you elect the mercury emissions averaging compliance alternative pursuant to §63.9623(d), you must keep a copy of the emission averaging implementation plan required in §63.9623(d)(2), records of the taconite pellet production rate for each furnace included in the averaging, and all calculations required under §63.9634(m).

(e) If you elect to adjust the activated carbon injection rate based on the taconite pellet production rate in accordance with the provisions in §63.9634(n), you must keep a copy of the

activated carbon injection implementation plan and records of the taconite pellet production rate and activated carbon injection rate.

(f) If you use CEMS to demonstrate compliance with the mercury emissions limits in Table 2 to this subpart, you must keep records of the notifications required in §63.9642(f).

20. Section 63.9650 is revised to read as follows:

§63.9650 What parts of the General Provisions apply to me?

Table 4 to this subpart shows which parts of the General Provisions in §§63.1 through 63.16 apply to you.

21. Section 63.9652 is amended by adding definitions in alphabetical order for "*Activated carbon injection (ACI) system*", "*Dry sorbent injection (DSI) system*", and "*Electrostatic precipitator (ESP)*".

The additions read as follows:

§63.9652 What definitions apply to this subpart?

* * * * *

Activated carbon injection (ACI) system means an add-on air pollution control system in which activated carbon or brominated activated carbon is injected into the flue gas steam upstream of a particulate matter control device to adsorb mercury in the exhaust stream. The absorbed mercury remains absorbed to the activated carbon and is collected in a primary or secondary particulate matter control device.

* * * * *

Dry sorbent injection (DSI) system means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react

with and neutralize acid gas in the exhaust stream forming a dry powder material that is collected by a primary or secondary particulate matter control device.

* * * * *

Electrostatic Precipitator (ESP) means a device that removes suspended particulate matter from flue exhaust by applying a high-voltage electrostatic charge to the particles, which are then attracted to and collected on a grounded plate. In a dry ESP, the particles are dislodged from the plate by rapping and are collected in a hopper positioned below the plate. In a wet ESP, particulates are removed from the plate by washing with water.

* * * * *

22. Revise the table heading and introductory paragraph for Table 1 to Subpart RRRRR of Part 63 to read as follows:

Table 1 to Subpart RRRRR of Part 63 — Particulate Matter Emission Limits

As required in §63.9590(a), you must comply with each applicable particulate matter emission limit in the following table:

* * * * *

22. Table 2 to Subpart RRRRR of Part 63 is redesignated as Table 4 to Subpart RRRRR of Part 63.

23. Add a new Table 2 to Subpart RRRRR of Part 63 to read as follows:

Table 2 to Subpart RRRRR of Part 63 – Mercury Emission Limits for Indurating Furnaces

As required in §63.9590(a), you must comply with each applicable mercury emission limit in the following table:

| | |
|-----------|---|
| For . . . | You must meet the following emission limits . . . |
|-----------|---|

| | |
|--|--|
| 1. Indurating furnaces constructed or reconstructed before May 15, 2023 | Either: (1) Mercury emissions from each furnace must not exceed 1.4×10^{-5} lb/LT of taconite pellets produced, or (2) Production-weighted average mercury emissions for a group of indurating furnaces, calculated according to Equation 6 in §63.9621(d)(7)(b), must not exceed 1.3×10^{-5} lb/LT. |
| 2. Indurating furnaces constructed or reconstructed on or after May 15, 2023 | Mercury emissions from each furnace must not exceed 2.6×10^{-6} lb/LT. |

24. Add Table 3 to Subpart RRRRR of Part 63 to read as follows:

Table 3 to Subpart RRRRR of Part 63 – Hydrogen Chloride and Hydrogen Fluoride

Emission Limits for Indurating Furnaces

As required in §63.9590(a), you must comply with each applicable hydrogen chloride and hydrogen fluoride emission limit in the following table:

| For . . . | You must meet the following emission limits . . . |
|--|---|
| 1. Indurating furnaces constructed or reconstructed before May 15, 2023 | Hydrogen chloride emissions must not exceed 4.6×10^{-2} lb/Long Ton of taconite pellets produced |
| | Hydrogen fluoride emissions must not exceed 1.2×10^{-2} lb/Long Ton of taconite pellets produced |
| 2. Indurating furnaces constructed or reconstructed on or after May 15, 2023 | Hydrogen chloride emissions must not exceed 4.4×10^{-4} lb/Long Ton of taconite pellets produced |
| | Hydrogen fluoride emissions must not exceed 3.3×10^{-4} lb/Long Ton of taconite pellets produced |

25. Revise new Table 4 to Subpart RRRRR of Part 63 to read as follows:

Table 4 to Subpart RRRRR of Part 63 - Applicability of General Provisions to Subpart RRRRR of Part 63

As required in §63.9650, you must comply with the requirements of the NESHAP

General Provisions (40 CFR part 63, subpart A) shown in the following table:

| Citation | Summary of requirement | Am I subject to this requirement? | Explanations |
|----------|------------------------|-----------------------------------|--------------|
|----------|------------------------|-----------------------------------|--------------|

| | | | |
|-------------------|---|-----|--|
| §63.1(a)(1)-(4) | Applicability | Yes | |
| §63.1(a)(5) | [Reserved] | No | |
| §63.1(a)(6) | Applicability | Yes | |
| §63.1(a)(7)-(9) | [Reserved] | No | |
| §63.1(a)(10)-(14) | Applicability | Yes | |
| §63.1(b)(1) | Initial Applicability Determination | Yes | |
| §63.1(b)(2) | [Reserved] | No | |
| §63.1(b)(3) | Initial Applicability Determination | Yes | |
| §63.1(c)(1)-(2) | Applicability After Standard Established, Permit Requirements | Yes | |
| §63.1(c)(3)-(4) | [Reserved] | No | |
| §63.1(c)(5) | Area Source Becomes Major | Yes | |
| §63.1(c)(6) | Reclassification | Yes | |
| §63.1(d) | [Reserved] | No | |
| §63.1(e) | Equivalency of Permit Limits | Yes | |
| §63.2 | Definitions | Yes | |
| §63.3(a)-(c) | Units and Abbreviations | Yes | |
| §63.4(a)(1)-(2) | Prohibited Activities | Yes | |
| §63.4(a)(3)-(5) | [Reserved] | No | |
| §63.4(b)-(c) | Circumvention, Fragmentation | Yes | |
| §63.5(a)(1)-(2) | Construction/Reconstruction, Applicability | Yes | |
| §63.5(b)(1) | Construction/Reconstruction, Applicability | Yes | |
| §63.5(b)(2) | [Reserved] | No | |
| §63.5(b)(3)-(4) | Construction/Reconstruction, Applicability | Yes | |
| §63.5(b)(5) | [Reserved] | No | |

| | | | |
|------------------|---|---|---|
| §63.5(b)(6) | Applicability | Yes | |
| §63.5(c) | [Reserved] | No | |
| §63.5(d)(1)-(4) | Application for Approval of Construction or Reconstruction | Yes | |
| §63.5(e) | Approval of Construction or Reconstruction | Yes | |
| §63.5(f) | Approval Based on State Review | Yes | |
| §63.6(a) | Compliance with Standards and Maintenance Requirements | Yes | |
| §63.6(b)(1)-(5) | Compliance Dates for New/Reconstructed Sources | Yes | |
| §63.6(b)(6) | [Reserved] | No | |
| §63.6(b)(7) | Compliance Dates for New/Reconstructed Sources | Yes | |
| §63.6(c)(1)-(2) | Compliance Dates for Existing Sources | Yes | |
| §63.6(c)(3)-(4) | [Reserved] | No | |
| §63.6(c)(5) | Compliance Dates for Existing Sources | Yes | |
| §63.6(d) | [Reserved] | No | |
| §63.6(e)(1)(i) | Operation and Maintenance Requirements - General Duty to Minimize Emissions | Yes, on or before the compliance date specified in §63.9600(a). No, after the compliance date specified in §63.9600(a) | See §63.9600(a) for general duty requirement. |
| §63.6(e)(1)(ii) | Operation and Maintenance Requirements - Requirement to Correct Malfunction as Soon as Possible | No | |
| §63.6(e)(1)(iii) | Operation and Maintenance Requirements - Enforceability | Yes | |

| | | | |
|-------------------------|---|---|---|
| §63.6(e)(2) | [Reserved] | No | |
| §63.6(e)(3) | Startup, Shutdown, Malfunction (SSM) Plan | Yes, on or before the compliance date specified in §63.9610(c). No, after the compliance date specified in §63.9610(c) | |
| §63.6(f)(1) | SSM exemption | No | See §63.9600(a). |
| §63.6(f)(2)-(3) | Methods for Determining Compliance | Yes | |
| §63.6(g)(1)-(3) | Alternative Nonopacity Standard | Yes | |
| §63.6(h), except (h)(1) | Compliance with Opacity and Visible Emission (VE) Standards | No | Opacity limits in subpart RRRRR are established as part of performance testing in order to set operating limits for ESPs. |
| §63.6(h)(1) | Compliance except during SSM | No | See §63.9600(a). |
| §63.6(i)(1)-(14) | Extension of Compliance | Yes | |
| §63.6(i)(15) | [Reserved] | No | |
| §63.6(i)(16) | Extension of Compliance | Yes | |
| §63.6(j) | Presidential Compliance Exemption | Yes | |
| §63.7(a)(1)-(2) | Applicability and Performance Test Dates | No | Subpart RRRRR specifies performance test applicability and dates. |
| §63.7(a)(3)-(4) | Performance Testing Requirements | Yes | |
| §63.7(b) | Notification | Yes | |
| §63.7(c) | Quality Assurance/Test Plan | Yes | |

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| §63.7(d) | Testing Facilities | Yes | |
| §63.7(e)(1) | Conduct of Performance Tests | No | See §63.9621. |
| §63.7(e)(2)-(4) | Conduct of Performance Tests | Yes | |
| §63.7(f) | Alternative Test Method | Yes | |
| §63.7(g) | Data Analysis | Yes | Except this subpart specifies how and when the performance test results are reported. |
| §63.7(h) | Waiver of Tests | Yes | |
| §63.8(a)(1)-(2) | Monitoring Requirements | Yes | |
| §63.8(a)(3) | [Reserved] | No | |
| §63.8(a)(4) | Additional Monitoring Requirements for Control Devices in §63.11 | No | Subpart RRRRR does not require flares. |
| §63.8(b)(1)-(3) | Conduct of Monitoring | Yes | |
| §63.8(c)(1)(i) | Operation and Maintenance of CMS | Yes, on or before the compliance date specified in §63.9632(b)(4). No, after the compliance date specified in §63.9632(b)(4) | See §63.9632 for operation and maintenance requirements for monitoring. See §63.9600(a) for general duty requirement. |
| §63.8(c)(1)(ii) | Spare parts for CMS Equipment | Yes | |
| §63.8(c)(1)(iii) | SSM Plan for CMS | Yes, on or before the compliance date specified in §63.9632(b)(4). No, after the compliance date specified in §63.9632(b)(4) | |
| §63.8(c)(2)-(3) | CMS Operation/Maintenance | Yes | |
| §63.8(c)(4) | Frequency of Operation for CMS | No | Subpart RRRRR specifies |

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| | | | requirements for operation of CMS. |
| §63.8(c)(5)-(8) | CMS Requirements | Yes | CMS requirements in §63.8(c)(5) and (6) apply only to COMS for dry ESPs. |
| §63.8(d)(1)-(2) | Monitoring Quality Control | Yes | |
| §63.8(d)(3) | Monitoring Quality Control | No | See §63.9632(b)(5). |
| §63.8(e) | Performance Evaluation for CMS | Yes | |
| §63.8(f)(1)-(5) | Alternative Monitoring Method | Yes | |
| §63.8(f)(6) | Relative Accuracy Test Alternative (RATA) | Yes | Only if using continuous emission monitoring systems to demonstrate compliance with Table 2 to this subpart. |
| §63.8(g)(1)-(g)(4) | Data Reduction | Yes | |
| §63.8(g)(5) | Data That Cannot Be Used | No | Subpart RRRRR specifies data reduction requirements. |
| §63.9 | Notification Requirements | Yes | Additional notifications for CMS in §63.9(g) apply to COMS for dry ESPs. |
| §63.9(k) | Electronic reporting procedures | Yes | Only as specified in §63.9(j) |
| §63.10(a) | Recordkeeping and Reporting, Applicability and General Information | Yes | |
| §63.10(b)(1) | General Recordkeeping Requirements | Yes | |

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| §63.10(b)(2)(i) | Records of SSM | No | See §63.9642 for recordkeeping when there is a deviation from a standard. |
| §63.10(b)(2)(ii) | Recordkeeping of Failures to Meet a Standard | No | See §63.9642 for recordkeeping of (1) date, time and duration; (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 | |
| §63.10(b)(2)(v) | Actions Taken to Minimize Emissions During SSM | No | |
| §63.10(b)(2)(vi) | Recordkeeping for CMS Malfunctions | Yes | |
| §63.10(b)(2)(vii)-(xii) | Recordkeeping for CMS | Yes | |
| §63.10(b)(2)(xiii) | Records for Relative Accuracy Test | No | |
| §63.10(b)(2)(xiv) | Records for Notification | Yes | |
| §63.10(b)(3) | Applicability Determinations | Yes | |
| §63.10(c)(1)-(6) | Additional Recordkeeping Requirements for Sources with CMS | Yes | |
| §63.10(c)(7)-(8) | Records of Excess Emissions and Parameter Monitoring Exceedances for CMS | | Subpart RRRRR specifies recordkeeping requirements. |

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| §63.10(c)(9) | [Reserved] | No | |
| §63.10(c)(10)-(14) | CMS Recordkeeping | Yes | |
| §63.10(c)(15) | Use of SSM Plan | No | |
| §63.10(d)(1)-(2) | General Reporting Requirements | Yes | Except this subpart specifies how and when the performance test results are reported. |
| §63.10(d)(3) | Reporting opacity or VE observations | No | Subpart RRRRR does not have opacity and VE standards that require the use of EPA Method 9 of appendix A-4 to 40 CFR part 60 or EPA Method 22 of appendix A-7 to 40 CFR part 60. |
| §63.10(d)(5) | SSM Reports | Yes, on or before the compliance date specified in §63.9641(b)(4). No, after the compliance date specified in §63.9641(b)(4) | See §63.9641 for malfunction reporting requirements. |
| §63.10(e) | Additional Reporting Requirements | Yes, except a breakdown of the total duration of excess emissions due to startup/shutdown in §63.10(e)(3)(vi)(I) is not required and when the summary report is submitted through CEDRI, the report is not required to be titled "Summary Report-Gaseous and Opacity Excess Emission and | The electronic reporting template combines the information from the summary report and excess emission report with the Subpart RRRRR compliance report. |

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| | | Continuous Monitoring System Performance.” | |
| §63.10(f) | Waiver for Recordkeeping or Reporting | Yes | |
| §63.11 | Control Device and Work Practice Requirements | No | Subpart RRRRR does not require flares. |
| §63.12(a)-(c) | State Authority and Delegations | Yes | |
| §63.13(a)-(c) | State/Regional Addresses | Yes | |
| §63.14(a)-(t) | Incorporation by Reference | Yes | |
| §63.15(a)-(b) | Availability of Information and Confidentiality | Yes | |
| §63.16 | Performance Track Provisions | Yes | |