AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

FEDERAL REGISTER

Vol. 80 Tuesday,
No. 125 June 30, 2015

Part II

Environmental Protection Agency

40 CFR Part 63
National Emissions Standards for Hazardous Air Pollutants: Ferroalloys Production; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA–HQ–OAR–2010–0895; FRL–9928–66–OAR]

RIN 2060–AQ11

National Emissions Standards for Hazardous Air Pollutants: Ferroalloys Production

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action finalizes the residual risk and technology review (RTR) conducted for the Ferroalloys Production source category regulated under national emission standards for hazardous air pollutants (NESHAP). These final amendments include revisions to particulate matter (PM) standards for electric arc furnaces, metal oxygen refining processes, and crushing and screening operations, and expand and revise the requirements to control process fugitive emissions from furnace operations, tapping, casting, and other processes. We are also finalizing opacity limits, as proposed in 2014. However, regarding opacity monitoring, in lieu of Method 9, we are requiring monitoring with the digital camera opacity technique (DCOT). Furthermore, we are finalizing emissions standards for four previously unregulated hazardous air pollutants (HAP): Formaldehyde, hydrogen chloride (HCl), mercury (Hg) and polycyclic aromatic hydrocarbons (PAH). Other requirements related to testing, monitoring, notification, recordkeeping, and reporting are included. This rule is health protective due to the revised emissions limits for the stacks and the requirement of enhanced fugitive emissions controls that will achieve significant reductions of process fugitive emissions, especially manganese.

DATES: This final action is effective on June 30, 2015. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of June 30, 2015.

ADDRESSES: The Environmental Protection Agency (EPA) has established a docket for this action under Docket ID No. EPA–HQ–OAR–2010–0895. All documents in the docket are listed on the *www.regulations.gov* Web site. Although listed in the index, some information is not publicly available, *e.g.*, confidential business information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *http://www.regulations.gov*, or in hard copy at the EPA Docket Center, EPA WJC West Building, Room Number 3334, 1301 Constitution Ave. NW., Washington, DC. The Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m. Eastern Standard Time (EST), Monday through Friday. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: For questions about this final action, contact Phil Mulrine, Sector Policies and Programs Division (D243–02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina, 27711; telephone number: (919) 541–5289; fax number: (919) 541–3207; and email address: *mulrine.phil@epa.gov.* For specific information regarding the risk modeling methodology, contact Darcie Smith, Health and Environmental Impacts Division (C539–02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–2076; fax number: (919) 541–0840; and email address: *smith.darcie@epa.gov*. For information about the applicability of the NESHAP to a particular entity, contact Cary Secrest, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency, EPA WJC Building, 1200 Pennsylvania Ave. NW., Washington, DC 20460; telephone number: (202) 564–8661; and email address: *secrest.cary@epa.gov.*

SUPPLEMENTARY INFORMATION:

Preamble Acronyms and Abbreviation

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:

ATSDR Agency for Toxic Substances and Disease Registry
BLDS bag leak detection system
BTF Beyond-the-Floor
CAA Clean Air Act
CBI Confidential Business Information
CFR Code of Federal Regulations
EJ environmental justice
EPA Environmental Protection Agency
ERPG Emergency Response Planning Guidelines
ERT Electronic Reporting Tool
FeMn Ferromanganese
FR Federal Register
HAP hazardous air pollutants
HCl hydrochloric acid
HI Hazard Index
HQ Hazard Quotient
ICR Information Collection Request
IRIS Integrated Risk Information System
km kilometer
MACT maximum achievable control technology
mg/dscm milligrams per dry standard cubic meter
mg/m^3 milligrams per cubic meter
MIR maximum individual risk
MOR metal oxygen refining
MRL Minimal Risk Level
NAAQS National Ambient Air Quality Standards
NAICS North American Industry Classification System
NESHAP National Emissions Standards for Hazardous Air Pollutants
NTTAA National Technology Transfer and Advancement Act
OAQPS Office of Air Quality Planning and Standards
OECA Office of Enforcement and Compliance Assurance
OMB Office of Management and Budget
PAH polycyclic aromatic hydrocarbons
PB–HAP hazardous air pollutants known to be persistent and bio-accumulative in the environment
PM particulate matter
POM polycyclic organic matter
REL reference exposure level
RFA Regulatory Flexibility Act
RfC reference concentration
RTR residual risk and technology review
SAB Science Advisory Board
SBA Small Business Administration
SiMn Silicomanganese
SSM startup, shutdown, and malfunction
TOSHI target organ-specific hazard index
TPY tons per year
TRIM.FaTE Total Risk Integrated Methodology.Fate, Transport, and Ecological Exposure model
TTN Technology Transfer Network
μg/dscm micrograms per dry standard cubic meter
μg/m^3 micrograms per cubic meter
UMRA Unfunded Mandates Reform Act
UPL Upper Prediction Limit
VCS voluntary consensus standards

Background Information

On November 23, 2011, and October 6, 2014, the EPA proposed revisions to the Ferroalloys Production NESHAP based on our RTR. In this action, we are finalizing decisions and revisions for the NESHAP. We summarize some of the more significant comments we timely received regarding the proposed rule and provide our responses in this preamble. A summary of all other public comments on the proposal and the EPA's responses to those comments are available in document titled: *National Emission Standards for Hazardous Air Pollutant Emissions: Ferroalloys Production Summary of Public*

Comments and the EPA's Responses on Proposed Rule (76 FR 72508, November 23, 2011) and Supplemental Proposal (79 FR 60238, October 6, 2014), Docket ID No. EPA–HQ–OAR–2010–0895, which is available in the docket. A ''track changes'' version of the regulatory language that incorporates the changes in this action is also available in the docket.

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

I. General Information
- A. Does this action apply to me?
- B. Where can I get a copy of this document and other related information?
- C. Judicial Review and Administrative Reconsideration

II. Background
- A. What is the statutory authority for this action?
- B. What is the Ferroalloys Production source category and how does the NESHAP regulate HAP emissions from the source category?
- C. What changes did we propose for the Ferroalloys Production source category in our November 23, 2011, proposal and our October 6, 2014, supplemental proposal?

III. What is included in this final rule?
- A. What are the final rule amendments based on the risk review for the Ferroalloys Production source category?
- B. What are the final rule amendments based on the technology review for the Ferroalloys Production source category?
- C. What are the final rule amendments pursuant to CAA section 112(d)(2) & (3) for the Ferroalloys Production source category?
- D. What are requirements during periods of startup, shutdown, and malfunction?
- E. What other changes have been made to the NESHAP?
- F. What are the effective and compliance dates of the standards?
- G. What are the requirements for submission of performance test data to the EPA?

IV. What is the rationale for our final decisions and amendments for the Ferroalloys Production source category?
- A. Residual Risk Review for the Ferroalloys Production Source Category
- B. Technology Review for the Ferroalloys Production Source Category
- C. CAA Section 112(d)(2) & (3) Revisions for the Ferroalloys Production Source Category
- D. What changes did we make to the Ferroalloys Production opacity monitoring requirement?

V. Summary of Cost, Environmental, and Economic Impacts and Additional Analyses Conducted
- A. What are the affected sources?
- B. What are the air quality impacts?
- C. What are the cost impacts?
- D. What are the economic impacts?
- E. What are the benefits?
- F. What analysis of environmental justice did we conduct?
- G. What analysis of children's environmental health did we conduct?

VI. Statutory and Executive Order Reviews
- A. Executive Orders 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review
- B. Paperwork Reduction Act (PRA)
- C. Regulatory Flexibility Act (RFA)
- D. Unfunded Mandates Reform Act (UMRA)
- E. Executive Order 13132: Federalism
- F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
- G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks
- H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution or Use
- I. National Technology Transfer and Advancement Act and 1 CFR part 51
- J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations
- K. Congressional Review Act (CRA)

I. General Information

A. Does this action apply to me?

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

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

NESHAP and source category	NAICS [a] Code
Ferroalloys Production	331112

[a] North American Industry Classification System.

Table 1 of this preamble is not intended to be exhaustive, but rather to provide a guide for readers regarding entities likely to be affected by the final action for the source category listed. To determine whether your facility is affected, you should examine the applicability criteria in 40 CFR part 63, subpart XXX (National Emission Standards for Hazardous Air Pollutants (NESHAP): Ferroalloys Production). If you have any questions regarding the applicability of any aspect of this NESHAP, please contact the appropriate person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section of this preamble.

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

In addition to being available in the docket, an electronic copy of this final action will also be available on the Internet through the Technology Transfer Network (TTN) Web site, a forum for information and technology exchange in various areas of air pollution control. Following signature by the EPA Administrator, the EPA will post a copy of this final action at: *http://www.epa.gov/ttn/atw/ferroa/ferropg.html.* Following publication in the **Federal Register**, the EPA will post the **Federal Register** version and key technical documents at this same Web site.

Additional information is available on the RTR Web site at *http://www.epa.gov/ttn/atw/rrisk/rtrpg.html.* This information includes an overview of the RTR program, links to project Web sites for the RTR source categories and detailed emissions and other data we used as inputs to the risk assessments.

C. Judicial Review and Administrative Reconsideration

Under 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 by August 31, 2015. 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 Clean Air Act (CAA) further provides that ''[o]nly 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 ''[i]f 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, EPA WJC Building, 1200 Pennsylvania Ave. NW., Washington, DC 20460, with a copy to both the person(s) listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave. NW., Washington, DC 20460.

II. Background

A. What is the statutory authority for this action?

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

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

In the second stage of the regulatory process, the CAA requires the EPA to undertake two different analyses, which we refer to as the technology review and the residual risk review. Under the technology review, we must review the technology-based standards and revise them ''as necessary (taking into account developments in practices, processes, and control technologies)'' no less frequently than every 8 years, pursuant to CAA section 112(d)(6). Under the residual risk review, we must evaluate the risk to public health remaining after application of the technology-based standards and revise the standards, if necessary, to provide an ample margin of safety to protect public health or to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect. The residual risk review is required within 8 years after promulgation of the technology-based standards, pursuant to CAA section 112(f). In conducting the residual risk review, if the EPA determines that the current standards provide an ample margin of safety to protect public health, it is not necessary to revise the MACT standards pursuant to CAA section 112(f).[1] For more information on the statutory authority for this rule, see 79 FR 60238.

B. What is the Ferroalloys Production source category and how does the NESHAP regulate HAP emissions from the source category?

The EPA promulgated the Ferroalloys Production NESHAP on May 20, 1999 (64 FR 27450). The standards are codified at 40 CFR part 63, subpart XXX. The ferroalloys production industry consists of facilities that produce ferromanganese (FeMn) or silicomanganese (SiMn). The source category covered by this MACT standard currently includes two facilities.

The rule applies to ferroalloys production operations that are located at major sources of HAP emissions or are co-located at a major source of HAP emissions. The HAP emission sources at facilities subject to the Ferroalloys Production NESHAP are open, semi-sealed, or sealed submerged arc furnaces, tapping operations, casting operations, metal oxygen refining (MOR) process, crushing and screening operations, other processes, such as ladle treatment and slag raking, and outdoor fugitive dust sources. The 1999 NESHAP regulated these emissions sources through emission limits for PM, opacity limits, and work practices.

C. What changes did we propose for the Ferroalloys Production source category in our November 23, 2011, proposal and our October 6, 2014, supplemental proposal?

On November 23, 2011, the EPA published a proposed rule in the **Federal Register** (76 FR 72508) for the Ferroalloys Production NESHAP, 40 CFR part 63, subpart XXX that took into consideration the RTR analyses. In the 2011 proposed rule, we proposed:

- Revisions to the numeric emission limits for PM from furnace stacks to reflect the current performance of control devices in place at ferroalloys production facilities to control furnace emissions (primary and tapping), crushing and screening operations, and the MOR operation at one plant;
- Addition of Hg, HCl, PAH, and formaldehyde furnace stack emission standards that reflected the MACT determination for control of these pollutants;
- Requirements to capture process fugitive emissions using full building enclosure with negative pressure building ventilation and duct the captured emissions to a control device; and
- Revisions to the opacity standards to reflect effective capture and control of process fugitive emissions.

On October 6, 2014, the EPA published a supplemental proposed rule in the **Federal Register** (79 FR 60238). For the supplemental proposal, we proposed:

- Revisions to the proposed PM furnace stack emission standards based on additional test data submitted by the facilities;
- Revisions to the proposed Hg, HCl, and PAH furnace stack emission standards based on additional test data submitted by the facilities;
- Requirements to capture process fugitive emissions using effective, enhanced local capture, and duct the captured emissions to control devices;
- Revisions to the opacity standards to reflect effective, enhanced capture, and control of process fugitive emissions;
- To demonstrate compliance with the opacity limits, we proposed facilities would need to take opacity readings for an entire furnace cycle once per week per furnace using Method 9 or

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

as an option they could take the readings using DCOT; and

- Several minor clarifications and corrections.

III. What is included in this final rule?

This action finalizes the EPA's determinations pursuant to the RTR provisions of CAA section 112 for the Ferroalloys Production source category and amends the existing Ferroalloys Production NESHAP based on those determinations. Among the changes finalized in this action are: The promulgation of MACT-based limits for previously unregulated HAP; requirements to effectively capture and control process fugitive emissions; the removal of startup, shutdown, and malfunction (SSM) exemptions; and the addition of DCOT monitoring. This action also reflects several changes to the November 2011 and October 2014 proposals in consideration of comments received during the public comment periods as described in section IV of this preamble.

A. What are the final rule amendments based on the risk review for the Ferroalloys Production source category?

This section provides a summary of the final amendments to the Ferroalloys Production NESHAP being promulgated pursuant to CAA section 112(f).

1. Stack Emissions

We are promulgating PM emission limits for stacks at the following levels: 4.0 milligrams per dry standard cubic meter (mg/dscm) for new or reconstructed electric arc furnaces; 25 mg/dscm for existing electric arc furnaces; and 4.0 mg/dscm for any new, reconstructed, or existing local ventilation control device. These emission limits are the same as the limits proposed in the 2014 supplemental proposal.

In addition, we are promulgating a PM limit of 3.9 mg/dscm for any new, reconstructed, or existing MOR process and a PM limit of 13 mg/dscm for any new, reconstructed, or existing crushing and screening equipment, which are consistent with what we proposed in our November 23, 2011, proposal.

2. Process Fugitive Emissions Sources

We are promulgating a requirement that facilities in this source category must achieve effective enhanced capture of process fugitive emissions using a system of primary hoods (that capture process fugitive emissions near the source) and/or secondary capture of fugitives (which would capture remaining fugitive emissions near the roof-line). Facilities must install, operate, and maintain a process fugitives capture system that is designed to capture 95 percent or more of the process fugitive emissions. We are also promulgating an opacity limit of 8-percent to ensure process fugitive emissions are effectively captured. This is what we proposed in the October 6, 2014, supplemental proposal. However, we have revised the rule based on public comment, to provide more flexibility on how facilities achieve 95-percent capture of process fugitive emissions. We also strengthened the monitoring provisions to ensure that the required reductions are achieved.

B. What are the final rule amendments based on the technology review for the Ferroalloys Production source category?

We determined that there are developments in practices, processes, and control technologies that warrant revisions to the MACT standards for this source category for both stack PM emissions and process fugitive emissions. Therefore, under the authority of CAA section 112(d)(6), we are promulgating the same PM stack emission limits and enhanced fugitive control requirements that we are promulgating under CAA section 112(f), as described in section A above.

C. What are the final rule amendments pursuant to CAA section 112(d)(2) & (3) for the Ferroalloys Production source category?

We are promulgating emission limits for formaldehyde, HCl, Hg, and PAH, which were previously unregulated HAP, pursuant to CAA section 112(d)(2) and 112(d)(3).

We are promulgating a formaldehyde emission limit of 201 micrograms per dry standard cubic meter (µg/dscm) for any new, reconstructed, or existing electric arc furnace. This is the same limit that we proposed on November 23, 2011.

We are promulgating an HCl emission limit of 180 µg/dscm for new or reconstructed electric arc furnaces and 1,100 µg/dscm for existing electric arc furnaces. This is the same limit that we proposed on October 6, 2014.

For electric arc furnaces producing FeMn, we are promulgating Hg emission limits of 13 µg/dscm for new or reconstructed electric arc furnaces and 130 µg/dscm for existing electric arc furnaces. For electric arc furnaces producing SiMn, we are promulgating Hg emission limits of 4 µg/dscm for new or reconstructed electric arc furnaces and 12 µg/dscm for existing electric arc furnaces. The Hg limit for new SiMn furnaces is the same as in the October 6, 2014, supplemental proposal. The final Hg limits for new and existing FeMn and existing SiMn furnaces are generally consistent with the supplemental proposal; however, there were changes to these three limits due to the inclusion of new emission data we received shortly before or during the supplemental proposal comment period.

For electric arc furnaces producing FeMn, we are promulgating a PAH emission limit of 12,000 µg/dscm for new or reconstructed and existing electric arc furnaces. The FeMn furnace PAH emission limits are significantly higher than what we proposed in the October 6, 2014, supplemental proposal due to the inclusion of new PAH emission data we received a few weeks before signature of the supplemental proposal and during the supplemental proposal comment period. We explained in the supplemental proposal preamble that we received data shortly before that notice and provided the data for comment (i.e., the data were available in the docket). The data received during the comment period were consistent with the data mentioned in the supplemental proposal. For electric arc furnaces producing SiMn, we are promulgating a PAH emission limit of 72 µg/dscm for new or reconstructed electric arc furnaces and 130 µg/dscm for existing electric arc furnaces. The SiMn furnace new PAH emission limit is the same as the limit in the October 6, 2014, supplemental proposal. There was a slight revision to the existing SiMn furnace PAH limit due to the inclusion of new emission data we received during the supplemental proposal comment period.

D. What are the requirements during periods of startup, shutdown and malfunction?

We are finalizing, as proposed in the supplemental proposal, changes to the Ferroalloys Production NESHAP to eliminate the SSM exemption. Consistent with *Sierra Club* v. *EPA* 551 F. 3d 1019 (D.C. Cir. 2008), the EPA is establishing standards in this rule that apply at all times. Table 1 to subpart XXX of part 63 (General Provisions applicability table) is being revised to change several references related to requirements that apply during periods of SSM. We also are eliminating or revising certain recordkeeping and reporting requirements related to the eliminated SSM exemption. The EPA also made changes to the rule to remove or modify inappropriate, unnecessary, or redundant language in the absence of the SSM exemption. We determined that facilities in this source category can meet the applicable emission standards

in the Ferroalloys Production NESHAP at all times, including periods of startup and shutdown; therefore, the EPA determined that no separate standards are needed to address emissions during these periods.

E. What other changes have been made to the NESHAP?

This rule also finalizes revisions to several other Ferroalloys Production NESHAP requirements as proposed, or in some cases with some modification as described in this section.

To increase the ease and efficiency of data submittal and data accessibility, we are finalizing, as proposed, a requirement that owners and operators of ferroalloys production facilities submit electronic copies of certain required performance test reports through an electronic performance test report tool called the Electronic Reporting Tool (ERT). This requirement to submit performance test data electronically to the EPA does not require any additional performance testing and applies only to those performance tests conducted using test methods that are supported by the ERT.

We are finalizing the opacity standards, as proposed in the supplemental proposal. However, regarding compliance demonstration, we are requiring that facilities measure opacity using DCOT. In the supplemental proposal, we proposed facilities would need to monitor opacity with Method 9 or DCOT. However, after considering public comments, we decided to require DCOT rather than have it as optional. Regarding monitoring frequency, we proposed facilities would need to do opacity readings weekly per furnace building with no opportunity to reduce frequency overtime. After considering public comments, we have decided to require weekly readings initially, as proposed, but allow a facility an opportunity to decrease frequency of opacity readings to monthly per furnace building after 26 weeks of successful, compliant opacity readings.

In addition, due to the large variation in PAH emissions from furnace stacks during FeMn production, we are requiring quarterly compliance tests for PAHs (i.e., four PAH compliance tests per year) for furnaces while producing FeMn, with an opportunity for facilities to request decreased frequency of such compliance testing from their permit authority after the first year and after four or more successful PAH compliance tests have been completed and submitted electronically.

We are also finalizing other minor changes to the NESHAP in response to comments received during the public comment period for the proposal and supplemental proposal, as described in this preamble.

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

The revisions to the MACT standards being promulgated in this action are effective on June 30, 2015. The compliance date for existing ferroalloys production sources for all the requirements promulgated in this final rule is June 30, 2017. Facilities must comply with the changes set out in this final rule (which are being promulgated under CAA sections 112(d)(2), 112(d)(3), 112(d)(6), and 112(f)(2) for all affected sources) no later than 2 years after the effective date of the final rule. CAA section 112(f)(4) generally provides that a standard promulgated pursuant to CAA section 112(f)(2) applies 90 days after the effective date, but further provides for a compliance period of up to 2 years when the Administrator determines that such time is necessary for the installation of controls and that steps will be taken during that period to assure protection to health from imminent endangerment. We conclude that 2 years are necessary to complete the installation of the enhanced local capture system and other controls. In the period between the effective date of this rule and the compliance date, existing sources will need to continue to comply with the requirements specified in 40 CFR 63.1650 through 40 CFR 63.1660. New sources must comply with the all of the standards immediately upon the effective date of the standard, June 30, 2015, or upon startup, whichever is later.

G. What are the requirements for submission of performance test data to the EPA?

As we proposed, the EPA is taking a step to increase the ease and efficiency of data submittal and data accessibility. Specifically, the EPA is finalizing the requirement for owners and operators of ferroalloys production facilities to submit electronic copies of certain required performance test reports.

Data will be collected by direct computer-to-computer electronic transfer using EPA-provided software. This EPA-provided software is an electronic performance test report tool called the ERT. The ERT will generate an electronic report package which will be submitted to the Compliance and Emissions Data Reporting Interface (CEDRI) and then archived to the EPA's Central Data Exchange (CDX). A description and instructions for use of the ERT can be found at *http://www.epa.gov/ttn/chief/ert/index.html* and CEDRI can be accessed through the CDX Web site (*http://www.epa.gov/cdx*).

The requirement to submit performance test data electronically to the EPA does not create any additional performance testing and will apply only to those performance tests conducted using test methods that are supported by the ERT. A listing of the pollutants and test methods supported by the ERT is available at the ERT Web site. The EPA believes, through this approach, industry will save time in the performance test submittal process. Additionally, this rulemaking benefits industry by reducing recordkeeping costs as the performance test reports that are submitted to the EPA using CEDRI are no longer required to be kept in hard copy.

State, local, and tribal agencies will benefit from more streamlined and accurate review of performance test data that will become available through WebFIRE. The public will also benefit. Having these data publicly available enhances transparency and accountability. For a more thorough discussion of electronic reporting of performance tests using direct computer-to-computer electronic transfer and using EPA-provided software, see the discussion in the preamble of the proposal.

In summary, in addition to supporting regulation development, control strategy development, and other air pollution control activities, having an electronic database populated with performance test data will save industry, state, local, tribal agencies, and the EPA significant time, money, and effort while improving the quality of emission inventories and air quality regulations and enhancing the public's access to this important information.

IV. What is the rationale for our final decisions and amendments for the Ferroalloys Production source category?

For each issue, this section provides a description of what we proposed and what we are finalizing for the issue, the EPA's rationale for the final decisions and amendments, and a summary of key comments and responses. For all comments not discussed in this preamble, comment summaries and the EPA's responses can be found in the comment summary and response document, which is available in the docket.

A. Residual Risk Review for the Ferroalloys Production Source Category

1. What did we propose pursuant to CAA section 112(f) for the Ferroalloys Production source category?

Pursuant to CAA section 112(f), we conducted a residual risk review and presented the results of this review, along with our proposed decisions regarding risk acceptability and ample margin of safety, in the October 6, 2014, supplemental proposal for the Ferroalloys Production NESHAP (79 FR 60238). The results of the risk assessment for the 2014 supplemental proposal are presented briefly below in Table 2 and in more detail in the residual risk document, *Residual Risk Assessment for the Ferroalloys Source Category in Support of the September 2014 Supplemental Proposal*, which is available in the docket for this rulemaking.

Based on actual emissions estimates for the Ferroalloys Production source category supplemental proposal, the maximum individual risk (MIR) for cancer was estimated to be up to 20-in-1 million driven by emissions of chromium compounds, PAHs, and nickel compounds. The maximum chronic non-cancer target organ-specific hazard index (TOSHI) value was estimated to be up to 4 driven by fugitive emissions of manganese. The maximum off-site acute hazard quotient (HQ) value was estimated to be 1 for arsenic compounds, hydrogen fluoride (HF), and formaldehyde. The total estimated national cancer incidence from this source category, based on actual emission levels, was 0.002 excess cancer cases per year, or one case in every 500 years.

Based on MACT-allowable emissions estimated for the Ferroalloys Production source category supplemental proposal, the MIR was estimated to be up to 100-in-1 million driven by emissions of arsenic and cadmium compounds from the MOR process baghouse outlet. The maximum chronic non-cancer TOSHI value was estimated to be up to 40 driven by emissions of manganese from the MOR process. The total estimated national cancer incidence from this source category, based on MACT-allowable emission levels, was 0.005 excess cancer cases per year, or one case in every 200 years.

We also found there were emissions of four persistent and bioaccumulative HAP (PB–HAP) with an available RTR multipathway screening value, and the reported emissions of these four HAP (cadmium compounds, dioxins/furans, Hg compounds, and PAH) were greater than the Tier 1 multipathway screening values for these compounds for both facilities at the time of the supplemental proposal. We conducted a Tier 2 multipathway screen for both facilities, and conducted a refined multipathway assessment for one facility in the source category. Results of the refined multipathway assessment predict a potential lifetime cancer risk of 10-in-1 million to the maximum exposed individual due to exposure to dioxins and PAHs. The non-cancer HQ was predicted to be below 1 for cadmium compounds and 1 for Hg compounds.

However, as explained in the *Revised Development of the Risk and Technology Review (RTR) Emissions Dataset for the Ferroalloys Production Source Category for the 2014 Supplemental Proposal* document, it is important to note that about 75 percent of the emissions test results for dioxins were below the detection limit. To be conservative, in our calculations of emissions estimates, we assumed all the test results that were recorded as below detection were one half the detection limit. Therefore, there are considerable uncertainties in estimated emissions for dioxins. Nevertheless, since we assumed emissions were at the level of one half the detection limit in all these cases where emissions were not even detected, we believe our emissions estimates are conservative (*i.e.*, more likely to be overestimates rather than underestimates of the true emissions).

Emissions of the four PB–HAP and two environmental HAP (HCl and HF) were reported by ferroalloys facilities. Tier 1 results for PB–HAP indicate that concentrations of cadmium compounds and dioxins are below the ecological benchmarks. Mercury compounds and PAHs concentrations were greater than the benchmark so a Tier 2 screen was conducted. For PAH and methylmercury, none of the individual modeled concentrations for any facility exceeded any of the ecological benchmarks. For mercuric chloride, the weighted average modeled concentrations for all soil parcels were well below the soil benchmarks. For HCl and HF, the average modeled concentrations around each facility did not exceed any ecological benchmarks.

For the supplemental proposal, we weighed all health risk factors in our risk acceptability determination and we proposed that the residual risks from the Ferroalloys Production source category are unacceptable.

TABLE 2—FERROALLOYS INHALATION RISK ASSESSMENT RESULTS IN THE OCTOBER 2014 SUPPLEMENTAL PROPOSAL

Maximum individual cancer risk (in 1 million) [a]		Estimated population at increased risk levels of cancer	Estimated annual cancer incidence (cases per year)	Maximum chronic non-cancer TOSHI [b]		Maximum screening acute non-cancer HQ [d]
Actual emissions level	MACT-allowable emissions level [c]			Actual emissions level	MACT-allowable emissions level	
20	100	>= 1-in-1 million: 31,000 ..... >= 10-in-1 million: 400 ..... >= 100-in-1 million: 0	0.002	4	40	HQ_{REL} = 1 (arsenic compounds, formaldehyde, hydrofluoric acid).

[a] Estimated maximum individual excess lifetime cancer risk due to HAP emissions from the source category.
[b] Maximum TOSHI. The target organ with the highest TOSHI for the Ferroalloys Production source category for both actual and allowable emissions is the neurological system. The estimated population at increased levels of noncancer hazard is 1,500 based on actual emissions and 11,000 based on allowable emissions.
[c] The development of allowable emission estimates can be found in the memorandum titled *Revised Development of the RTR Emissions Dataset for the Ferroalloys Production Source Category for the 2014 Supplemental Proposal*, which is available in the docket.
[d] See section III.A.3 of the supplemental proposal or the risk assessment document supporting the supplemental proposal for explanation of acute dose-response values. Acute assessments are not performed on allowable emissions.

As described above, to address the unacceptable risks in the supplemental proposal, we proposed tighter PM emission limits for the stacks, which significantly reduce risks due to allowable emissions. To reduce risks

due to process fugitive emissions, we proposed facilities must achieve effective enhanced capture of process fugitive emissions using a system of primary hoods (that capture process fugitive emissions near the source) and/or secondary capture of fugitives (which would capture remaining fugitive emissions near the roof-line). As described in the supplemental proposal, we estimated that these controls would reduce the MIR cancer risk estimate to 10-in-1 million and that the chronic noncancer hazard index (HI) would be reduced to an HI of 1. Acute screening and multipathway results were also reduced. In the supplemental proposal, we concluded that these risks, after the implementation of proposed controls, were acceptable.

We then considered whether the Ferroalloys Production NESHAP provides an ample margin of safety to protect public health and whether more stringent standards are necessary to prevent an adverse environmental effect, taking into consideration costs, energy, safety, and other relevant factors. In considering whether the standards should be tightened to provide an ample margin of safety to protect public health, we considered the same risk factors that we considered for our acceptability determination and also considered the costs, technological feasibility, and other relevant factors related to emissions control options that might reduce risks associated with emissions from the source category. Based on our ample margin of safety analysis for the supplemental proposal, we did not identify any additional cost-effective controls to further reduce risks beyond the requirements we proposed to achieve acceptable risks. Therefore, we proposed that additional HAP emissions controls are not necessary to provide an ample margin of safety. Based on the results of our screening analysis for risks to the environment, we also proposed that more stringent standards are not necessary to prevent an adverse environmental effect.

2. How did the risk review change for the Ferroalloys Production source category?

Information received by the EPA shortly before and during the supplemental proposal comment period included additional PAH and Hg test data that were not included in the supplemental proposal risk assessment due to timing and the need to review the data. We described the data in the supplemental proposal and asked for comment on the use of these data. After completion of the data review, these data were included in the risk assessment for the final rule. Therefore, PAH and Hg emissions estimates were revised for the final rule assessment. Some revisions were also made for other HAP emissions. These changes are discussed further in section IV of this preamble.

With the exception of the revised emissions described above, the risk assessment supporting the final rule was conducted in the same manner, using the same models and methods, as that conducted for the supplemental proposal. The documentation for the final rule risk assessment can be found in the document titled *Residual Risk Assessment for the Ferroalloys Source Category in Support of the 2015 Risk and Technology Review Final Rule*, which is available in the docket for this rulemaking.

a. Inhalation Risk Assessment Results. Table 3 provides an overall summary of the results of the inhalation risk assessment supporting the final rule.

TABLE 3—FERROALLOYS INHALATION RISK ASSESSMENT RESULTS IN THE 2015 FINAL RULE

Maximum individual cancer risk (in 1 million) [a]		Estimated population at increased risk levels of cancer	Estimated annual cancer incidence (cases per year)	Maximum chronic non-cancer TOSHI [b]		Maximum screening acute non-cancer HQ [d]
Actual emissions level	MACT-allowable emissions level [c]			Actual emissions level	MACT-allowable emissions level	
20	100	>= 1-in-1 million: 41,000 ..... >= 10-in-1 million: 90 ..... >= 100-in-1 million: 0	0.003	4	40	HQ_{REL} = 1 (hydrofluoric acid, arsenic compounds).

[a] Estimated maximum individual excess lifetime cancer risk due to HAP emissions from the source category.
[b] Maximum TOSHI. The target organ with the highest TOSHI for the Ferroalloys Production source category for both actual and allowable emissions is the neurological system. The estimated population at increased levels of noncancer hazard is 1,300 based on actual emissions and 11,000 based on allowable emissions.
[c] The development of allowable emission estimates can be found in the memorandum titled *Revised Development of the RTR Emissions Dataset for the Ferroalloys Production Source Category for the 2014 Supplemental Proposal*, which is available in the docket.
[d] See section III.A.3 of the supplemental proposal or the risk assessment document supporting the supplemental proposal for explanation of acute dose-response values. Acute assessments are not performed on allowable emissions.

The inhalation risk modeling performed to estimate risks based on actual and allowable emissions for the final rule relied primarily on updated emissions estimates based on data received through two Information Collection Requests (ICRs), additional data submitted by the companies voluntarily, and revised calculations as described further in the *Revised Development of the Risk and Technology Review (RTR) Emissions Dataset for the Ferroalloys Production Source Category for the 2015 Final Rule*, which is available in the docket for this action.

The results of the chronic baseline inhalation cancer risk assessment indicate that, based on updated estimates of actual emissions, the cancer MIR posed by the Ferroalloys Production source category is 20-in-1 million, with chromium compounds, PAHs, and nickel compounds from tapping fugitives, furnace fugitives, and furnace stacks accounting for more than 70 percent of the MIR. The total estimated cancer incidence from ferroalloys production sources based on updated actual emission levels is 0.003 excess cancer cases per year, or one case every 333 years, with emissions of PAH, chromium compounds, and cadmium compounds contributing 49 percent, 15 percent, and 12 percent, respectively, to this cancer incidence. In addition, we note that approximately 90 people are estimated to have cancer risks greater than or equal to 10-in-1 million, and approximately 41,000 people are estimated to have risks greater than or equal to 1-in-1 million because of actual emissions from this source category. These results, based on updated actual

emissions, are very similar to those presented in the supplemental proposal.

When considering the updated MACT-allowable emissions, the maximum individual lifetime cancer risk is estimated to be up to 100-in-1 million, driven by emissions of arsenic and cadmium compounds from the MOR process baghouse outlet. The estimated cancer incidence is estimated to be 0.006 excess cancer cases per year or one excess case in every 167 years. Approximately 3,300 people are estimated to have cancer risks greater than or equal to 10-in-1 million and approximately 120,000 people are estimated to have cancer risks greater than or equal to 1-in-1 million considering updated allowable emissions from ferroalloys facilities. These results, based on updated MACT-allowable emissions, are very similar to those presented in the supplemental proposal.

The maximum modeled chronic non-cancer HI (TOSHI) value for the source category based on updated actual emissions is estimated to be 4, with manganese emissions from tapping fugitives accounting for more than 50 percent of the HI. Approximately 1,300 people are estimated to have exposure to HI levels greater than 1 as a result of updated actual emissions from this source category. When considering updated MACT-allowable emissions, the maximum chronic non-cancer TOSHI is estimated to be 40, driven by manganese emissions from the MOR process baghouse outlet. Approximately 12,000 people are estimated to have potential exposure to TOSHI levels greater than 1 considering updated allowable emissions from these ferroalloys facilities. These results, for both updated actual and MACT-allowable emissions, are very similar to those presented in the supplemental proposal.

b. Acute Risk Results. Based on the updated emissions described above, our screening analysis for worst-case acute impacts based on actual emissions indicates the potential for hydrofluoric acid and arsenic compounds to have HQ results of 1, based on their respective REL values. Both facilities have estimated acute HQs of 1 for these pollutants. Acute HQs for other pollutants (*e.g.*, hydrochloric acid) are less than one. These acute results, based on updated emissions, are very similar to those presented in the supplemental proposal.

All the HAP in this analysis have worst-case acute HQ values of 1 or less, indicating that they carry no potential to pose acute concerns. In characterizing the potential for acute non-cancer impacts of concern, it is important to remember the upward bias of these exposure estimates (*e.g.*, worst-case meteorology coinciding with a person located at the point of maximum concentration during the hour) and to consider the results along with the conservative estimates used to develop peak hourly emissions as described earlier, as well as the screening methodology. More discussion of our acute screening methods can be found in the supplemental proposal or in the risk assessment document, *Residual Risk Assessment for the Ferroalloys Production Source Category in Support of the 2015 Final Rule,* which are available in the docket.

c. Multipathway Risk Screening Results. Results of the worst-case Tier I screening analysis indicate that PB–HAP emissions (based on updated estimates of actual emissions) from one or both facilities in this source category exceed the screening emission rates for cadmium compounds, Hg compounds, dioxins, and PAHs. For the compounds and facilities that did not screen out at Tier I, we conducted a Tier II screen.

Based on the Tier II screening analysis, no facility emits cadmium compounds above the Tier II screening levels. One facility emits Hg compounds above the Tier II screening levels and exceeds that level by a factor of 8. Both facilities emit chlorinated dibenzodioxins and furans (CDDF) as 2,3,7,8-tetrachlorodibenzo-p-dioxin toxicity equivalent (TEQ) above the Tier II screening levels and the facility with the highest emissions of dioxins exceeds its Tier II screening level by a factor of 10. Both facilities emit POM as benzo(a)pyrene TEQ above the Tier II screening levels and the facility with the highest emissions exceeds its screening level by a factor of 50. These multipathway screening results, based on updated emissions, are very similar to those presented in the supplemental proposal. More information about our multipathway screening approach can be found in the supplemental proposal or in the risk assessment document, *Residual Risk Assessment for the Ferroalloys Production Source Category in Support of the 2015 Final Rule,* which are available in the docket.

d. Multipathway Refined Risk Results. A refined multipathway analysis was conducted for one of the two facilities in this source category using the TRIM.FaTE model and the updated emissions as described above. The facility, Eramet Marietta Incorporated, in Marietta, Ohio, was selected based upon its close proximity to nearby lakes, and farms as well as having the highest potential multipathway risks for three of the four PB–HAP based on the Tier II analysis. In addition, it was selected for a refined multipathway assessment in the supplemental proposal. These three PB–HAP were cadmium, Hg, and PAHs. Even though neither facility exceeded the Tier II screening levels for cadmium, Eramet had the higher value. Eramet also emits dioxins, but the other facility had a higher exceedance of its Tier II screening level. The refined analysis was conducted on all four PB–HAP using updated emissions as described above. The refined analysis for this facility showed that the Tier II screen for each pollutant over-predicted the potential risk when compared to the refined analysis results.

Overall, the refined analysis predicts a potential lifetime cancer risk of 20-in-1 million to the maximum most exposed individual due to exposure to dioxins and PAHs. The non-cancer HQ is predicted to be below 1 for cadmium compounds and 1 for Hg compounds. These results, based on updated emissions, are very similar to those presented in the supplemental proposal.

Further details on the refined multipathway analysis can be found in Appendix 10 of the *Residual Risk Assessment for the Ferroalloys Production Source Category in Support of the 2015 Final Rule,* which is available in the docket.

e. Environmental Risk Screening Results. As described in section III.A of the supplemental proposal preamble (79 FR 60238), we conducted an environmental risk screening assessment for the Ferroalloys Production source category. In the Tier I screening analysis for PB–HAP (other than lead, which was evaluated differently as noted in section III.A of the supplemental proposal preamble, 79 FR 60238), the individual modeled Tier I concentrations for one facility in the source category exceeded some sediment, fish-avian piscivorus, and surface soil benchmarks for PAHs, methylmercury, and mercuric chloride. Therefore, we conducted a Tier II assessment.

In the Tier II screening analysis for PAHs and methylmercury, none of the individual modeled concentrations for any facility in the source category exceeded any of the ecological benchmarks (either the lowest-observed-adverse-effect level or the no-observed-adverse-effect level). For mercuric chloride, soil benchmarks were exceeded for some individual modeled points that collectively accounted for 11 percent of the modeled area. However, the weighted average modeled concentration for all soil parcels was well below the soil benchmarks. For

lead, we did not estimate any exceedances of the secondary lead National Ambient Air Quality Standards (NAAQS).

For HCl, each individual concentration (*i.e.*, each off-site data point in the modeling domain) was below the ecological benchmarks for all facilities. The average modeled HCl concentration around each facility (*i.e.*, the average concentration of all off-site data points in the modeling domain) did not exceed any ecological benchmark. For HF, some individual modeled points exceeded the ecological benchmark but accounted for less than 0.02 percent of the modeled area. The average modeled HF concentration around each facility (*i.e.*, the average concentration of all off-site data points in the modeling domain) did not exceed any ecological benchmarks. These results, based on updated emissions, are very similar to those presented in the supplemental proposal.

f. Facility-Wide Risk Assessment Results. As in the supplemental proposal, for both facilities in this source category, there are no other HAP emissions sources present beyond those included in the source category. Therefore, we conclude that the facility-wide risk is the same as the source category risk and that no separate facility-wide analysis is necessary.

g. Demographic Analysis Results. To examine the potential for any environmental justice (EJ) issues that might be associated with the source category, we updated the demographic analysis that was conducted for the supplemental proposal, using the risk results based on the updated emissions. A demographic analysis is an assessment of risks to individual demographic groups of the population close to the facilities. In this analysis, we evaluated the distribution of HAP-related cancer risks and noncancer hazards from the Ferroalloys Production source category across different social, demographic, and economic groups within the populations living near facilities identified as having the highest risks. The methodology and the results of the demographic analyses are included in a technical report, *Risk and Technology Review—Analysis of Socio-Economic Factors for Populations Living Near Ferroalloys Facilities,* which is available in the docket for this action.

The results of the demographic analysis are summarized in Table 4 below. These results, for various demographic groups, are based on the estimated risks from actual emissions levels for the population living within 50 kilometers (km) of the facilities.

TABLE 4—FERROALLOYS PRODUCTION DEMOGRAPHIC RISK ANALYSIS RESULTS FOR 2015 FINAL RULE

	Nationwide	Population with cancer risk at or above 1-in-1 million due to Ferroalloys Production	Population with chronic hazard index above 1 due to Ferroalloys Production
Total Population	312,861,265	40,748	1,348
Race by Percent			
White	72	97	99
All Other Races	28	3	1
Race by Percent			
White	72	97	99
African American	13	1	0
Native American	1	0	0
Other and Multiracial	14	2	1
Ethnicity by Percent			
Hispanic	17	1	1
Non-Hispanic	83	99	99
Income by Percent			
Below Poverty Level	14	15	6
Above Poverty Level	86	85	94
Education by Percent			
Over 25 and without High School Diploma	15	11	10
Over 25 and with a High School Diploma	85	89	90
Age by Percent			
Ages 0 to 17	24	21	22
Ages 18 to 64	63	61	59
Ages 65 and up	13	18	19

The results of the Ferroalloys Production source category demographic analysis indicate that emissions from the source category expose approximately 41,000 people to a cancer risk at or above 1-in-1 million and approximately 1,300 people to a chronic non-cancer TOSHI greater than 1 (we note that many of those in the first risk group are the same as those in the second). The percentages of the at-risk population in each demographic group

(except for ages 65 and up) are similar to or lower than their respective nationwide percentages. These results are very similar to those presented in the supplemental proposal.

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

Several comments were received regarding the risk assessment for the Ferroalloys Production source category. The following is a summary of some of the more significant comments and our responses to those comments. Other comments received and our responses to those comments can be found in the document titled *National Emission Standards for Hazardous Air Pollutant Emissions: Ferroalloys Production Summary of Public Comments and the EPA's Responses on Proposed Rule (76 FR 72508, November 23, 2011) and Supplemental Proposal (79 FR 60238, October 6, 2014)*, which is available in the docket for this action (EPA–HQ–OAR–2010–0895).

Comment: Several comments were received on the reference value used in the risk assessment to evaluate chronic noncancer effects due to exposure to manganese. In the 2011 proposal, we used the Integrated Risk Information System (IRIS) reference concentration (RfC), and we received negative comments regarding that value not being the ''best available science.'' We evaluated the available values and, in accordance with our prioritized dose-response values and Scientific Advisory Board (SAB) comments, we used the Agency for Toxic Substances and Disease Registry (ATSDR) minimum risk level (MRL) for manganese in the risk assessment for the 2014 supplemental proposal. We received mixed comments in response to the supplemental proposal. Some comments were negative regarding our use of the ATSDR MRL, while others were generally supportive of our use of the MRL compared to the IRIS value, yet still thought the MRL was not the appropriate reference value to use in the assessment.

Regarding use of the IRIS RfC for manganese in the 2011 proposal risk assessment, commenters stated that the manganese RfC was outdated, did not constitute the best available science (including use of benchmark dose statistical analyses or physiologically-based pharmacokinetic models), and substantial research has been conducted since the 1993 IRIS RfC was last updated. The commenters refer to their own calculations and studies and developed their own reference value for manganese and state that the EPA should use that value. Regarding use of the ATSDR MRL for manganese in the 2014 supplemental proposal risk assessment, the same commenters stated that the manganese MRL was an improvement over the IRIS RfC, but was still not the best available science because, in their review, ATSDR did not apply physiologically-based pharmacokinetic models. The commenters again refer to their own calculations and studies developing a reference value for manganese and state that EPA should use that value. Another commenter disagrees with the use of the ATSDR MRL because the EPA has not provided sufficient rationale for using a less-protective value. Instead, this commenter recommended that we continue to use the IRIS RfC value.

Response: We agree that there were newer information and assessments available at the time of the 2011 proposal and also for the 2014 supplemental proposal, some of which may use the currently preferred approach for developing dose-response values (i.e., the benchmark dose approach). However, we only use reference values which meet certain criteria in regards to how they are derived (using EPA guidelines or similar), derived by credible sources with health-protective goals similar to those of the EPA, using peer-review procedures also similar to the level applied to the EPA values, and with an open public comment process. We have a tiered priority list for sources of chronic dose-response information, which meet these criteria (as described in the supplemental proposal, 79 FR 60238). The tiered prioritized list has been through a SAB review and was favorably received.

In the risk assessment for the 2011 proposal, we used the IRIS RfC for chronic exposure to manganese and received numerous comments regarding use of that value. In response to those comments, we considered the existing peer-reviewed health effect reference values for chronic inhalation exposure to manganese from other federal, state, and international agencies and organizations. We developed a reference value array document [2] providing additional details for the available values. We noted that the ATSDR MRL value available for the 2011 proposal was a draft value. The ATSDR MRL was subsequently finalized in 2012.

In our consideration of available reference values, we did not include some values specifically noted in public comments. The level of peer review for non-governmental scientific publications is qualitatively different than the governmental processes used to derive the values described in our tiered prioritized list, and some of the values in the manganese reference value array document. The information provided by these additional references from the commenter(s) may prove useful in an IRIS reassessment for manganese, and we agree that the physiologically-based models, along with all other relevant available peer-reviewed literature, will be considered in any IRIS reassessment of manganese. Yet, a direct application of any of these values instead of an established value in our tiered list of prioritized dose-response values would be inconsistent with the EPA policy as implemented in the RTR Program, and with recommendations from the SAB.

After considering the values in our tiered list of prioritized dose-response values, and consistent with Agency policy supported by SAB, we decided to rely on the 2012 ATSDR MRL value for the 2014 supplemental proposal. Both the 1993 IRIS RfC and the 2012 ATSDR MRL were based on the same study (Roels et al., 1993). In developing their assessment, ATSDR used updated dose-response modeling methodology (benchmark dose approach) and considered recent pharmacokinetic findings to support their selection of uncertainty values in the MRL derivation.

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

As noted in section II.A.1 of this preamble, the EPA sets standards under CAA section 112(f)(2) using ''a two-step standard-setting approach, with an analytical first step to determine an 'acceptable risk' that considers all health information, including risk estimation uncertainty and includes a presumptive limit on maximum individual lifetime risk (MIR) of approximately 1 in 10 thousand.'' [3] (54 FR 38045, September 14, 1989).

a. Acceptability Determination. As in the supplemental proposal, the EPA concludes that the risks are unacceptable for the following reasons. First, the EPA considered the fact that the noncancer hazard HQ ranges from 4 based on actual emissions to 40 based on allowable emissions. The EPA has not established under section 112 of the CAA a numerical range for risk

[2] U.S. EPA. Mn and BTEX Reference Value Arrays (Final Reports). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-12/047F, 2013.

[3] 1-in-10 thousand is equivalent to 100-in-1 million. The EPA currently describes cancer risks as 'n-in-1 million.'

acceptability for noncancer effects as it has with carcinogens, nor has it determined that there is a bright line above which acceptability is denied. However, the Agency has established that, as exposure increases above a reference level (as indicated by a HQ or TOSHI greater than 1), confidence that the public will not experience adverse health effects decreases and the likelihood that an effect will occur increases. For the Ferroalloys Production source category, the potential for members of the public to be exposed to manganese at concentrations up to 40 times the MRL reduces the Agency's confidence that the public is protected from adverse health effects and diminished the Agency's ability to determine that such exposures are acceptable. Second, the EPA considered the fact that the cancer risk estimate for actual emissions is 20-in-1 million and up to 100-in-1 million for allowable emissions. While 20-in-1 million is well within the acceptable range, risks from allowable emissions are at the upper end of the range of acceptability. This fact, combined with the fact that the noncancer hazard is up to 40 times the MRL and the refined multipathway HQ for Hg is at the RfD, leads the Agency to conclude that the risk from this source category is unacceptable.

b. What is EPA requiring in the final rule to address the unacceptable risks? As mentioned above, to address the unacceptable risks, we are promulgating tighter PM emission limits for the stacks, which significantly reduces risks due to allowable emissions. Furthermore, to reduce risks due to process fugitive emissions, we are promulgating a requirement that facilities must achieve effective enhanced capture of process fugitive emissions using a system of primary hoods (that capture process fugitive emissions near the source) and/or secondary capture of fugitives (which would capture remaining fugitive emissions near the roof-line). Facilities must install, operate, and maintain a process fugitives capture system that is designed to capture and control 95 percent or more of the process fugitive emissions. We are also promulgating an opacity limit of 8 percent to ensure process fugitive emissions are effectively captured and controlled. Facilities will need to meet an average opacity of 8 percent for the entire furnace cycle (about 90–120 minutes) with a maximum opacity of no more than 20-percent opacity for any 12-minute period. Moreover, facilities will need to monitor various control parameters (such as fan speed, amperage, pressure drops, and/or damper positioning) to ensure the process fugitive capture systems and controls are working properly.

c. Remaining Risks After Implementation of the Requirements to Address Unacceptable Risks. To determine the remaining risks after implementation of the lower stack PM emissions limits and requirements to effectively control process fugitives (described above), we conducted a post control risk assessment, which is described in detail in the document titled *Residual Risk Assessment for the Ferroalloys Source Category in Support of the 2015 Final Rule,* which is available in the docket for this rulemaking.

Based on this post control risk assessment, we conclude that after the requirements described above to address unacceptable risks are implemented, the risks to public health will be substantially reduced.

For example, the results of the post-control chronic inhalation cancer risk assessment indicate that the maximum individual lifetime cancer risk posed by these two facilities, after the implementation of the promulgated controls, will be no higher than 10-in-1 million, with an estimated reduction in cancer incidence to 0.002 cases per year. In addition, the number of people estimated to have a cancer risk greater than or equal to 1-in-1 million would be 26,000. The results of the post-control risk assessment also indicate that the maximum chronic noncancer inhalation TOSHI value would be reduced to 1. The number of people estimated to have a TOSHI greater than 1 would be reduced to 0. We also estimate that after the implementation of controls, the maximum worst-case acute HQ value would be less than 1 (based on REL values).

Considering post-control emissions of multipathway HAP, Hg emissions would be reduced by approximately 3 pounds per year (lbs/yr), lead would be reduced by about 1,600 lbs/yr, polycyclic organic matter (POM) emissions would be reduced by approximately 3,600 lbs/yr, cadmium would be reduced by about 150 lbs/yr, and dioxins and furans would be reduced by about 0.002 lbs/yr from the baseline emission rates.

d. Ample Margin of Safety Analysis. Under the ample margin of safety analysis, we again considered all of the health factors evaluated in the acceptability determination and evaluated the cost and feasibility of available control technologies and other measures (including the controls, measures, and costs reviewed under the technology review) that could be applied in this source category to further reduce the risks due to emissions of HAP identified in our risk assessment.

As described above, we estimate that the actions finalized under CAA section 112(f)(2) to address unacceptable risks will reduce the MIR to 10-in-1 million. The cancer incidence will be reduced to 0.002 cases per year and the number of people estimated to have cancer risks greater than 1-in-1 million will be reduced to 26,000 people. The chronic noncancer inhalation TOSHI will be reduced to 1 and the number of people exposed to a TOSHI level greater than 1 will be reduced to 0. In addition, the potential multipathway impacts will be reduced.

Based on all of the above information, we conclude that the risks will be acceptable after implementation of the lower stack limits for PM and the control requirements to reduce process fugitive emissions, as we concluded in the supplemental proposal. Based on our research and analysis, we did not identify any cost-effective controls beyond those described above that would achieve further reduction in risk. While in theory, the 2011 proposed approach of total enclosure with negative pressure would provide some additional risk reduction, the additional risk reduction is minimal and, similar to our assessment and conclusions described in the supplemental proposal, we continue to believe the total enclosure approach would not be economically feasible and may not be technically feasible for these facilities. No other technology advances were identified during the comment period. Therefore, we are not promulgating any additional requirements under the ample margin of safety analysis beyond the requirements being finalized to address unacceptable risks (as described above). We conclude that the controls to achieve acceptable risks will also provide an ample margin of safety to protect public health.

B. Technology Review for the Ferroalloys Production Source Category

1. What did we propose pursuant to CAA section 112(d)(6) for the Ferroalloys Production source category?

Pursuant to CAA section 112(d)(6), we conducted a technology review, which focused on identifying and evaluating developments in practices, processes, and control technologies for the emission sources in the Ferroalloys Production source category. For the 2011 proposal (76 FR 72508), we

identified developments in practices, processes or control technologies for PM emissions from stacks (as a surrogate for metal HAP) and for process fugitive metal HAP emissions. Based on the comments received from the public and information received through a 2012 ICR, we revised both the technology review and risk assessment for the Ferroalloys Production source category, which were described in detail in the 2014 supplemental proposal (79 FR 60238).

a. PM Emission Limits From Stacks. For PM stack emissions limits, we determined for the 2011 proposal that the test data received from the two facilities indicate that all five furnaces that are in operation have PM emission levels that are well below their respective emission limits in the 1999 MACT rule, which were based on size and product being produced. The test data received from the facilities also indicate that the PM emission levels for MOR and crushing and sizing are well below their respective emission limits in the 1999 MACT rule. These findings demonstrate that add-on particulate control technologies (Venturi scrubber, positive pressure fabric filter, negative pressure fabric filter) used to control emissions from the sources are effective in reducing PM (used as a surrogate for metal HAP). Based on these findings, in 2011 we proposed a PM limit of 24 mg/dscm corrected to 2 percent carbon dioxide (CO_2) for existing furnaces.

We received additional test data after the 2011 proposal and re-evaluated the PM limit using available PM emissions test data and consideration of variability across these data. Based on this analysis, we determined that it was appropriate to propose a revised PM limit of 25 mg/dscm for existing furnaces. No additional add-on control is expected to be required by the facilities to meet this revised existing source limit. To demonstrate compliance, we proposed these sources would be required to conduct periodic performance testing and develop and operate according to a baghouse operating plan or continuously monitor Venturi scrubber operating parameters. We also proposed that furnace baghouses would be required to be equipped with bag leak detection systems (BLDS).

For the 2011 proposal, the proposed new source PM standard was determined by evaluating the available data from the best performing furnace (which was determined to be furnace #2 at Felman). The proposed new source limit was determined to be 9.3 mg/dscm. We received additional test data after the 2011 proposal and re-evaluated the new source limit using the available test data. The revised new source PM standard for furnaces for the 2014 supplemental proposal was determined by evaluating the available data from the best performing furnace (which was again determined to be furnace #2 at Felman). The new source MACT limit was determined to be 4.0 mg/dscm based on data from furnace #2 and was proposed as the MACT emissions limit for PM from new and reconstructed source furnace stacks in the 2014 supplemental proposal.

The PM emission limit for the local ventilation control device outlet was also re-evaluated using compliance test data and test data from the 2012 ICR. A local ventilation control system is used to capture tapping, casting, or ladle treatment emissions and direct them to a control device other than one associated with the furnace. The 2011 proposal included a proposed PM limit for the local ventilation control device that was based on PM data from the furnaces. After the 2011 proposal, we received test data from three different emissions tests (for a total of nine test runs) specifically for this local ventilation source. We determined these data were more appropriate for the development of a limit for this source than the furnace data we had used for the 2011 proposal. There is currently only one local ventilation control device outlet emissions source in this source category. Using the new data for the one existing local ventilation source, we calculated a revised emissions limit of 4.0 mg/dscm and determined that this was an appropriate emissions limit for this source. Therefore, we proposed an emissions limit of 4.0 mg/dscm for existing, new, and reconstructed local ventilation control device emissions sources in the supplemental proposal.

For crushing and screening operations, we proposed an emission limit of 13 mg/dscm for new and existing crushing and sizing operations in the 2011 proposal. We did not receive any additional data for this emission source and, therefore, made no revisions to this proposed limit in the 2014 supplemental proposal.

The MOR operation is a unique process that is operated by only one facility (Eramet). We calculated a proposed emission limit of 3.9 mg/dscm in the 2011 proposal that would apply to both new and existing MOR operation sources. We did not receive any additional data for this emission source and, therefore, made no revisions to this proposed limit in the 2014 supplemental proposal.

b. Emission Standards for Process Fugitives. For process fugitive metal HAP emissions, we identified two potential developments in practices and control techniques. One option would require facilities to install and operate enhanced capture of process fugitive emissions using a combination of primary hoods and ductwork in close proximity to the emission sources, such as tapping or casting and/or secondary hoods located near the roofline. Another option would be to require full enclosure of the furnace building(s) with negative pressure and evacuate the process fugitive emissions to a control device(s). In the 2011 proposal, we proposed that the full furnace building enclosure option represented an advance in emission control measures since the Ferroalloys Production NESHAP was originally promulgated in 1999.

For day-to-day continuous monitoring to demonstrate compliance with the proposed full building enclosure requirements, the 2011 proposal relied mainly on requiring monitoring differential pressure to ensure facilities maintained a negative pressure of at least 0.007 inches of water and that emissions within the facilities would need to be vented to PM control devices. This was to be supplemented by operation and work practice standards that required preparation of a process fugitive emissions ventilation plan for each shop building. In the 2011 proposal, we also proposed a requirement that emissions exiting from a shop building may not exceed more than 10-percent opacity for more than one 6-minute period, to be demonstrated every 5 years as part of the periodic required performance tests.

We received significant comments in response to the 2011 proposal. Commenters claimed that we had significantly underestimated the costs for full building enclosure and that it would not be feasible for these facilities. After reviewing and considering the comments along with other information, we decided to re-evaluate the proposed requirement for negative pressure ventilation and consider other options.

Based on our re-evaluation, for the 2014 supplemental proposal, we concluded that the full-building enclosure option may not be feasible and would have significant economic impacts on the facilities. However, we concluded that an option based on enhanced local capture and control of process fugitive emissions using a combination of primary and secondary hoods is a feasible and cost-effective approach to achieve significant reductions in process fugitive HAP emissions. Therefore, in the 2014 supplemental proposal, we proposed

that facilities would need to install and operate a local capture system using a combination of primary and/or secondary hoods that is designed to achieve at least 95-percent capture and control of process fugitive emissions.

With the move to the proposed enhanced local capture alternative in the 2014 supplemental proposal, we no longer had a day-to-day continuous requirement of monitoring negative pressure. Instead, in the 2014 supplemental proposal, continuous compliance demonstration would be based mainly on meeting an opacity limit, monitoring ventilation parameters (such as fan speed, amperage, and/or damper positioning), and documenting the design of the system to achieve 95-percent capture. Since opacity monitoring would be a primary method to demonstrate continuous compliance, we proposed that facilities would need to meet an average opacity of 8 percent for an entire furnace cycle (about 90–120 minutes) with a maximum opacity of no more than 20 percent opacity for any 12-minute period. Furthermore, we proposed facilities would need to monitor opacity for a full furnace cycle (about 90–120 minutes) at least once per week per furnace building. We also proposed that, if the average opacity reading from the shop building is greater than 8-percent opacity during an observed furnace process cycle, an additional two more furnace process cycles must be observed such that the average opacity during the entire observation period is less than 7-percent opacity. A furnace process cycle means the period in which the furnace is tapped to the time in which the furnace is tapped again and includes periods of charging, smelting, tapping, casting, and ladle raking.

Regarding the design requirements, in the supplemental proposal, we proposed that the facilities in this source category must install, operate, and maintain a process fugitives capture system that is designed to collect 95 percent or more of the process fugitive emissions from furnace operations, casting MOR process, ladle raking, and slag skimming and crushing and screening operations and convey the collected emissions to a control device that meets specified emission limits and the proposed opacity limits. We proposed that this plan be submitted to the permitting authority, incorporated into the source's operating permit and updated every 5 years or when there is a significant change in variables that affect process fugitive emissions ventilation design. We proposed that this list of design criteria, coupled with the requirement for frequent opacity observations and operating parameter monitoring, would ensure process fugitive emissions are effectively controlled and would result in enforceable requirements.

More information concerning our proposed technology review can be found in the memoranda titled, *Revised Technology Review for the Ferroalloys Production Source Category, and Cost Impacts of Control Options Considered for the Ferroalloys Production NESHAP to Address Fugitive HAP Emissions,* which are available in the docket, and in the preamble to the 2014 supplemental proposed rule, 79 FR at 60271 to 60273.

2. How did the technology review change for the Ferroalloys Production source category?

For the October 6, 2014, supplemental proposal, we solicited comment regarding the use of new technologies to provide continuous or near continuous long term approaches to monitoring emissions from industrial sources for the Ferroalloy Production source category. After considering comments received and after evaluating the technologies further, we are replacing the weekly Method 9 opacity requirement with a weekly requirement to measure opacity using ASTM D7520–13 and DCOT to demonstrate compliance with the process fugitives standards. The final rule amendments require facilities to use the DCOT to measure opacity at least once per week for each of the furnace and MOR buildings to demonstrate compliance with the opacity limits. However, as mentioned above, facilities will have the opportunity to reduce the frequency of opacity readings to monthly after 26 consecutive weeks of compliant weekly readings. The facilities would still be required to meet an average opacity standard of 8-percent opacity for the furnace cycle (90–120 minutes) and at no time during operation may any two consecutive 6-minute block opacity readings be greater than 20-percent opacity. The cost of implementing the DCOT system is estimated to be approximately $200,000 per year for the source category with weekly readings. However, these costs decrease to about $90,000 per year for the source category if they do monthly readings per furnace building. All other requirements we proposed under CAA section 112(d)(6) in the supplemental proposal have not changed.

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

Several comments were received regarding the technology review for the Ferroalloys Production source category. The following is a summary of the more significant comments and our responses to those comments. Other comments received and our responses to those comments can be found in the document titled *National Emission Standards for Hazardous Air Pollutant Emissions: Ferroalloys Production Summary of Public Comments and the EPA's Responses on Proposed Rule (76 FR 72508, November 23, 2011) and Supplemental Proposal (79 FR 60238, October 6, 2014),* which is available in the docket for this action (EPA–HQ–OAR–2010–0895).

Comment: One commenter supported the EPA's decision to re-evaluate the feasibility and cost-effectiveness of the controls that the Agency proposed in its 2011 proposal. However, the commenter objects to the EPA's conclusion that an alternative system involving both primary and secondary capture is available and represents an ''advancement in technology'' pursuant to CAA section 112(d)(6). The commenter states that this type of system does not currently exist in practice at any ferroalloy operation. They explain that, in theory, such a system appears likely to provide some degree of additional reductions. However, the commenter notes some of the specific potential control methods mentioned by the EPA have already been proven not to work. As an example, the commenter states that curtains have previously been installed in an attempt to contain additional furnace emissions, but the curtains burned up due to the extreme heat in only a few weeks. The commenter, therefore, objects both to the characterization of these additional controls as a currently available ''advancement in technology,'' and to the EPA's conclusion that the cost of almost $100,000 per ton of HAP reductions for these additional controls is cost effective.

Response: In their supplemental comments on the 2011 proposed rule, industry representatives provided suggested alternative designs to address fugitive emissions from the furnace buildings. The designs suggested by the industry representatives included improving the existing primary hooding and capture systems close to the emissions sources and/or adding secondary capture to ensure effective capture and control of process fugitive

emissions. The use of a primary hooding and exhaust system in conjunction with general secondary hooding and exhaust system was estimated to provide a total capture of 95 percent of process fugitive emissions, including emissions from the tapping, casting, crushing/screening, and skimming/slag raking processes.

We reviewed these designs and discussed the designs with ventilation experts. The ventilation experts agreed that the suggested primary system along with secondary capture could achieve 95 percent reduction of process fugitive emissions from the buildings. They noted that many of the designs and improvements were based on the elements of good ventilation systems that are used in other industries to capture and control fugitive emissions. Because these designs have been only partially deployed in this industry, they constitute a relevant development in technology beyond what is required by the current rule. We view the successful deployment of these technologies in other industries and the expert judgement of industrial ventilation experts as establishing that the technologies are technically available for transfer to the Ferroalloy Production source category.

As part of our technology review, we evaluated the costs and effectiveness of a regulatory option that is based on the general emission control scenario suggested by the industry representatives which would include a system of primary and/or secondary hooding designed to capture 95 percent of process fugitive emissions. The process fugitive emissions would be captured by the primary and/or secondary hoods and routed to PM control devices. This option for the control of process fugitive emissions under CAA section 112(d)(6) is exactly the same option that we are promulgating under CAA section 112(f)(2) to capture and control fugitives (described in section IV.A of this preamble). We estimate that the total capital cost including monitoring would be about $40.3 million, the total annualized costs would be about $7.7 million per year, and that it would achieve 77 tpy reduction of HAP, mostly manganese and other HAP metals (e.g., cadmium compounds, chromium compounds, nickel compounds) and also achieve about 229 tpy reduction of PM. Based on our evaluation, we conclude that installing and operating such a system is a feasible and cost-effective approach to achieve significant reductions in process fugitive HAP emissions and will achieve almost as much reductions as the full building enclosure option (229 vs. 252 tons PM reductions). In light of the technical feasibility and cost effectiveness of this enhanced fugitive capture option (that includes a combination of primary capture and/or secondary capture designed to capture and control 95 percent of process fugitive), we are promulgating this option under the authority of section 112(d)(6) of the CAA. The control requirements and compliance requirements under this CAA section 112(d)(6) option are the exact same requirements we are promulgating under CAA section 112(f)(2) to address unacceptable risks for process fugitive emissions (described in section IV.A of this preamble). As described in that section, facilities must install, operate, and maintain a process fugitives capture system that is designed to capture 95 percent or more of the process fugitive emissions. Facilities will also need to meet an average opacity of 8 percent for each furnace cycle (about 90–120 minutes) with a maximum opacity of no more than 20 percent opacity for any two consecutive 6-minute block opacity readings (12-minute period). To demonstrate compliance, facilities will need to initially monitor opacity for a full furnace cycle (about 90–120 minutes) at least once per week per furnace building using the DCOT. Moreover, facilities will need to monitor various control parameters (such as fan speed, amperage, pressure drops, and/or damper positioning) to ensure the fugitive capture system and controls are working properly.

Comment: One commenter states that the only notable development that occurred in ferroalloys emission practices, processes, and control technologies since the 1999 NESHAP took effect is the installation of scrubbers and baghouses. Since scrubbers and baghouses have demonstrably different performance in controlling particulate emissions, the commenter claims that developments since 1999 warrant separate particulate emission limits based on the type of control device involved. The commenter states that the EPA did not acknowledge this development and proposed a single stack particulate limit for all furnaces. The commenter provided proposed PM limits of 27 mg/dscm for wet particulate scrubbers and 6.2 mg/dscm for baghouses, and notes that these limits would actually reduce the total allowable particulate emissions from their facility in comparison to the EPA's proposed single limit of 25 mg/dscm.

Response: Section 112 of the CAA grants the EPA discretion to establish ''categories and subcategories'' of sources to be regulated under CAA section 112, and further allows the EPA to ''distinguish among classes, types and sizes of sources within a category or subcategory'' when establishing MACT standards. However, we believe it is not appropriate to establish subcategories based on type of control technology used by these emission sources.

In the case of the PM emissions from the ferroalloy furnaces, we believe if it was appropriate, we could subcategorize based on the size of the furnace or the product being produced in that furnace. However, we determined that there was no statistical difference in PM emissions based on the size of the individual furnaces or by the product being produced in those furnaces. Therefore, we decided it was not appropriate to subcategorize for PM emissions and instead established a single PM limit for all of the furnaces, regardless of size or product being produced.

Comment: One commenter believes that the EPA's proposed requirements to reduce process fugitive emissions under CAA section 112(d)(6) are not based on control practices in use in the ferroalloys industry, but rather simply reflect a decision by the EPA that the sources at Eramet and Felman should be subject to additional requirements. By putting the enhanced fugitive control requirements under CAA section 112(d)(6), the commenter believes that the EPA dispenses with any attempt to justify the requirements as cost effective, as would be required to impose for ''beyond the MACT floor'' standards under CAA section 112(d)(2), and the EPA dispenses with any attempt to present a risk-based justification for the requirements, as would be required under CAA section 112(f)(2).

Response: As an initial matter, we note the process fugitive control requirements are justified as risk-based requirements under CAA section 112(f)(2). See section IV.A of this preamble. Therefore, the premise of this comment is factually incorrect. That said, the requirements of this rule also are justified under CAA section 112(d)(6). Under CAA section 112(d)(6), we are required to review emission standards no less frequently than every 8 years and revise them ''as necessary (taking into account developments in practices, processes, and control technologies).'' The ferroalloys industry already includes some of the controls envisioned under this control scenario. For example, all 5 furnaces in the source category in the U.S. already have some type of primary hooding to capture some process fugitive emissions from tapping and/or casting operations. In fact, one of the five furnaces in the U.S. already achieves good capture of

tapping emissions with their current configuration. Furthermore, effective primary and secondary capture systems are currently used in other metals industries (e.g., steel production, secondary lead production) to effectively capture and control process fugitives.

Moreover, as described above, representatives from the ferroalloys companies have provided suggestions as to how such a system could be designed, installed and operated to achieve 95-percent capture of fugitives. Therefore, we conclude such a system is technically feasible. Furthermore, as we described above, we conclude these controls would be cost effective ($91,000 per ton of HAP metal reduced). Therefore, we conclude it is appropriate to promulgate this control option under section 112(d)(6) of the CAA.

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

a. PM Emissions Limits from Stacks. The available test data from the five furnaces located at the two facilities indicate that all of these furnaces have PM emission levels that are well below their respective emission limits in the 1999 MACT rule. These findings demonstrate that the add-on emission control technologies (Venturi scrubber, positive pressure fabric filter, negative pressure fabric filter) used to control emissions from the furnaces are effective in reducing particulate matter (used as a surrogate for metal HAP).

The PM emissions, used as a surrogate for metal HAP, that were reported by the industry in response to the 2010 ICR, were far below the level specified in the current NESHAP, indicating improvements in the control of PM emissions since promulgation of the current NESHAP. We re-evaluated the data received in 2010, along with additional data received in 2012 and 2013, to determine whether it is appropriate to promulgate revised emissions limits for PM from the furnace process vents. More details regarding the available PM data and this re-evaluation are provided in the *Revised Technology Review for the Ferroalloys Production Source Category for the Supplemental Proposal,* which is available in the docket. Unlike PAH and Hg stack data, we did not see significant differences in emissions based on product produced (*e.g.,* FeMn or SiMn). Therefore, we are not promulgating separate PM stack limits based on product type.

Based on this analysis, we determined it is appropriate to finalize the revised existing source furnace stack PM emissions limit of 25 mg/dscm, which is the same limit we proposed in the supplemental proposal. No additional add-on controls are expected to be required by the facilities to meet the revised existing source limit of 25 mg/dscm. However, this revised limit will result in significantly lower ''allowable'' PM emissions from the source category compared to the level of emissions allowed by the 1999 MACT rule and would help prevent any emissions increases. To demonstrate compliance, these sources will be required to conduct periodic performance testing and develop and operate according to a baghouse operating plan or continuously monitor Venturi scrubber operating parameters. Also furnace baghouses will be required to be equipped with BLDS.

The final PM standard for new and reconstructed furnaces is 4.0 mg/dscm and was determined by evaluating the available data from the best performing furnace (which was determined to be furnace #2 at Felman).

As described above, the PM emission limit for the local ventilation control device outlet was re-evaluated for the supplemental proposal using compliance test data and test data from the 2012 ICR. We did not receive any additional data since the supplemental proposal for this source. Using all the available data for the one existing local ventilation source, we calculated an emissions limit of 4.0 mg/dscm, which is the exact same limit we proposed in the supplemental proposal. We conclude that this is still an appropriate emissions limit for this source. Therefore, we are promulgating this emissions limit of 4.0 mg/dscm for existing, new, and reconstructed local ventilation control device emissions sources. In addition, we are promulgating a PM limit of 3.9 mg/dscm for any new, reconstructed, or existing MOR process, and a PM limit of 13 mg/dscm for any new, reconstructed, or existing crushing and screening equipment, which are consistent with what we proposed in our November 23, 2011, proposal.

Furthermore, as mentioned in section III of this preamble, we are promulgating a PM limit of 3.9 mg/dscm for any new, reconstructed, or existing MOR process, and a PM limit of 13 mg/dscm for any new, reconstructed, or existing crushing and screening equipment.

2. Standards for Process Fugitive Metal HAP Emissions

In the 2011 proposal, we proposed a requirement for sources to enclose the furnace building, collect fugitive emissions such that the furnace building is maintained under negative pressure, and duct those emissions to control devices. As described above, commenters on the 2011 proposal disagreed with our assessment.

Commenters also raised concerns about worker safety and comfort in designing and operating full enclosure systems. We believe that such issues can be overcome with proper ventilation design and installation of air conditioning systems and other steps to ensure these issues are not a problem. However, after further review and evaluation, we conclude that it would be quite costly for these facilities to become fully enclosed with negative pressure and achieve the appropriate ventilation and conditioning of indoor air.

We re-evaluated the costs and operational feasibility associated with the full building enclosure with negative pressure. We consulted with ventilation experts who have worked with hot process fugitives similar to those found in the ferroalloys industry (*e.g.,* electric arc furnace steel mini-mills and secondary lead smelters). We determined that substantially more air flow, air exchanges, ductwork, fans and control devices and supporting structural improvements would be needed (compared to what we had estimated in the 2011 proposal) to achieve negative pressure and also ensure adequate ventilation and air quality in these large furnace buildings. Therefore, as explained in the supplemental proposal, we determined that the proposed negative pressure approach presented in the 2011 proposal would be much more expensive than what we had estimated in 2011 and may not be feasible for these facilities.

As mentioned above, for the supplemental proposal, we also evaluated another option based on enhanced capture of the process fugitive emissions using a combination of effective local capture with primary hooding close to the emissions sources and/or secondary capture of remaining fugitives with roof-line capture hoods and control devices. These buildings are currently designed such that fugitive emissions that are not captured by the primary hoods flow upward with a natural draft to the open roof vents and are vented to the atmosphere uncontrolled. Under our enhanced control scenario, the primary capture close to the emissions sources would be significantly improved with effective local hooding and ventilation and the remaining fugitive emissions (that are not captured by the primary hoods) would be drawn up to the roof-line and

captured with secondary hooding and vented to control devices.

In cases where additional collection of fugitives from the roof areas is needed to comply with the rule, fume collection areas may be isolated via baffles (so the area above the furnace where fumes collect may be kept separated from ''empty'' spaces in large buildings) and roof openings over fume collection areas can be sealed and fumes directed to control devices. The fugitive emission capture system should achieve inflow at the building floor, but outflow toward the roof where most of the remaining fugitives would be captured by the secondary hooding. We concluded that a rigorous, systematic examination of the ventilation requirements throughout the building is the key to developing a fugitive emission capture system (consisting of primary hoods, secondary hoods, enclosures, and/or building ventilation ducted to PM control devices) that can be designed and operated to achieve very low levels of fugitive emissions. Such an evaluation considers worker health, safety, and comfort and it is designed to optimize existing ventilation options (fan capacity and hood design). Thus, we concluded that an enhanced capture system based on these design principles does represent an advancement in technology. We estimate that this type of control system could capture 95 percent of the process fugitive emissions and vent those emissions to PM control devices. This enhanced local capture option is described in more detail in the *Revised Technology Review for the Ferroalloys Production Source Category* and in the *Cost Impacts of Control Options to Address Fugitive HAP Emissions for the Ferroalloys Production NESHAP Supplemental Proposal* documents, which are available in the docket.

Under this control option, the cost elements vary by plant and furnace and include the following:

- Curtains or doors surrounding furnace tops to contain fugitive emissions;
- Improvements to hoods collecting tapping emissions;
- Upgrade fans to improve the airflow of fabric filters controlling fugitive emissions;
- Addition of ''secondary capture'' or additional hoods to capture emissions from tapping platforms or crucibles;
- Addition of fugitives capture for casting operations;
- Improvement of existing control devices or addition of fabric filters; and
- Addition of rooftop ventilation, in which fugitive emissions escaping local capture are collected in the roof canopy over process areas through addition of partitions, hoods, and then directed through ducts to control devices.

We estimate the total capital costs of installing the required ductwork, fans and control devices under the enhanced capture option (which is described above and in more detail in the *Cost Impacts of Control Options to Address Fugitive HAP Emissions for the Ferroalloys Production NESHAP Supplemental Proposal* document) to be $40.3 million and the total annualized cost to be $7.7 million for the two plants. The total estimated HAP reduction for the enhanced capture option is 77 tpy at a cost per ton of $103,000 ($52 per pound). We also estimate that this option would achieve PM emission reductions of 229 tpy, resulting in cost per ton of PM removed of $34,600 per ton and achieve particulate matter 2.5 microns and less ($PM_{2.5}$) emission reductions of 48 tons per year, resulting in a cost per ton of $PM_{2.5}$ removal of $165,000 per ton. We believe these controls for process fugitive HAP emissions (described above), which are based on enhanced capture (with primary and secondary hooding) are feasible for the Ferroalloys Production source category from a technical standpoint and are cost effective. These cost effectivenesses are in the range of cost effectiveness for PM and HAP metals from other previous rules. However, it is important to note that there is no bright line for determining acceptable cost effectiveness for HAP metals. Each rulemaking is different and various factors must be considered. Some of the other factors we consider when making decisions whether to establish standards beyond-the-floor (BTF) under CAA section 112(d)(2) or under CAA section 112(d)(6) include, but are not limited to, the following: which of the HAP metals are being reduced and by how much; total capital costs; annual costs; and costs compared to total revenues (*e.g.*, costs to revenue ratios).

As described in the supplemental proposal, we also re-evaluated the option based on full building enclosure with negative pressure.

Based on those analyses, we concluded in the supplemental proposal and conclude again in this action that the full-building enclosure option with negative pressure may not be feasible and would have significant economic impacts on the facilities (including potential closure for one or more facilities). Therefore, we are not promulgating an option based on full building enclosure with negative pressure.

However, consistent with the supplemental proposal, we conclude that the enhanced local capture option is a feasible and cost-effective approach to achieve significant reductions in fugitive HAP emissions and will achieve almost as much reductions as the full-building enclosure option (229 vs. 252 tons PM reductions) and, thus, achieving most of the emission reductions at significantly lower costs. In light of the technical feasibility and cost effectiveness of the enhanced capture option, we are promulgating the enhanced capture option under the authority of section 112(d)(6) of the CAA.

Regarding monitoring requirements, as described above, in the 2011 proposal, we proposed that facilities would need to conduct day-to-day continuous monitoring of differential pressure to comply with the proposed full building enclosure with negative pressure requirements.

With the move to the enhanced local capture alternative option, there is no longer any requirement to monitor negative pressure. Under this option, the main ongoing compliance requirements will be based on opacity readings and parametric monitoring. Therefore, since opacity is a main method of monitoring compliance for process fugitive emissions controls, we believe that frequent opacity monitoring is necessary, as reflected in the supplemental proposal. Furthermore, as we explained in the supplemental proposal, we believe an average opacity limit of 8 percent is appropriate to ensure effective capture and control of process fugitive emissions over the entire furnace cycles and that a maximum opacity of 20 percent for any 2 consecutive 6-minute periods is appropriate to prevent spikes in fugitive emissions. Therefore, we are promulgating an average opacity limit of 8 percent and a maximum opacity limit of 20 percent for any 2 consecutive 6-minute periods.

Regarding opacity monitoring, we are promulgating a requirement that facilities conduct opacity observations at least once per week for a full furnace cycle for each operating furnace and each MOR operation using the DCOT instead of Method 9. We believe the DCOT is appropriate for the final rule because it provides more objective and better substantiated opacity readings. However, as described above, we are allowing an opportunity for facilities to decrease frequency of opacity monitoring to monthly after 26 compliant weekly readings.

Similar to the supplemental proposal, we are also finalizing the requirement

that, if the average opacity reading from the shop building is greater than 8-percent opacity during an observed furnace process cycle, an additional two more furnace process cycles must be observed such that the average opacity during the entire observation period is less than 7-percent opacity. A furnace process cycle means the period in which the furnace is tapped to the time in which the furnace is tapped again and includes periods of charging, smelting, tapping, casting, and ladle raking.

As mentioned above, we are also promulgating the requirement that at no time during operation may any two consecutive 6-minute block opacity readings be greater than 20-percent opacity.

We believe that the source should demonstrate that the overall design of the ventilation system is adequate to achieve the final standards. Therefore, we are promulgating the requirement that facilities in this source category must install, operate, and maintain a process fugitives capture system that is designed to collect 95 percent or more of the process fugitive emissions from furnace operations, casting MOR process, ladle raking and slag skimming and crushing, and screening operations, and convey the collected emissions to a control device that meets specified emission limits and the opacity limits. We are also requiring continuous monitoring of key ventilation operating system parameters and periodic inspections of the ventilation systems to ensure that the ventilation systems are operating as designed.

We believe that if the facilities design the capture and control systems according to the most recent (at the time of construction) ventilation design principles recommended by the American Conference of Governmental Industrial Hygienists (ACGIH), including detailed schematics of the ventilation system design, addressing variables that affect capture efficiency such as cross drafts and describes protocol or design characteristics to minimize such events and identifies monitoring and maintenance steps, the plan will be capable of ensuring the system is properly designed and continues to operate as designed. Therefore, we are promulgating the requirement that facilities develop such a plan and submit this plan to the permitting authority. The plan must also be incorporated into the source's operating permit and updated every 5 years or when there is a significant change in variables that affect process fugitive emissions ventilation design. This design plan, coupled with the requirement for frequent opacity observations and operating parameter monitoring, will ensure fugitive emissions are effectively controlled and will result in enforceable requirements. We recognize that other design requirements and/or more frequent opacity observations may yield more compliance certainty, but incur greater costs and not result in measurable decreases in emissions.

We believe the additional PM data we received justifies the revised PM stack emission limits we are promulgating under the authority of section 112(d)(6) of the CAA. We also believe the enhanced capture and control is a development in technology that is feasible and cost effective, so we are promulgating the enhanced local capture and control option under the authority of section 112(d)(6) of the CAA. Furthermore, we believe it is appropriate to promulgate the DCOT to ensure adequate furnace capture and control.

C. CAA Section 112(d)(2) & (3) Revisions for the Ferroalloys Production Source Category

1. What did we propose pursuant to CAA section 112(d)(2) & (3) for the Ferroalloys Production source category?

In the November 23, 2011, proposal, we proposed a formaldehyde emission limit of 201 μg/dscm for any new, reconstructed, or existing electric arc furnace.

In the October 6, 2014, supplemental proposal, we proposed the following:

- HCL emission limit of 180 μg/dscm for new or reconstructed electric arc furnaces and 1,100 μg/dscm for existing electric arc furnaces;
- Hg emission limit of 17 μg/dscm for new or reconstructed electric arc furnaces producing FeMn, and 170 μg/dscm for existing electric arc furnaces producing FeMn;
- Hg emission limit of 4 μg/dscm for new or reconstructed electric arc furnaces producing SiMn and 12 μg/dscm for existing electric arc furnaces producing SiMn;
- PAH emission limit of 880 mu;g/dscm for new or reconstructed electric arc furnaces producing FeMn and 1,400 μg/dscm for existing electric arc furnaces producing FeMn; and
- PAH emission limit of 72 μg/dscm for new or reconstructed electric arc furnaces producing SiMn and 120 μg/dscm for existing electric arc furnaces producing SiMn.

2. How did the CAA section 112(d)(2) & (3) revisions change for the Ferroalloys Production source category?

In mid-August 2014, a few weeks prior to the signature of the supplemental proposal, we received a test report with Hg and PAH data, which we were unable to incorporate into the proposed limits in the supplemental proposal, in part because of the timing and in part because we had not completed our review and technical analysis of the data. We noted receipt of the data and invited comment on it in the supplemental proposal, and made the data available for review. We committed to considering these data in the final rule based on public comment and our technical analysis. In addition to the pre-supplemental proposal data, another Hg and PAH test report was received during the comment period. The new test data for FeMn production received in August 2014 and during the comment period had much higher PAH concentrations than the data that were previously provided. The new PAH test data for SiMn production were only slightly higher than previous data received from the facilities. The new Hg data for both FeMn and SiMn production were comparable to the test data that we used to develop the proposed limits for the supplemental proposal.

For this action, we re-evaluated the PAH and Hg emission limits to include the new test data. The 99-percent upper prediction limit (UPL) calculation using all the available reliable data for PAH emissions results in an emissions limit of 12,000 μg/dscm for existing furnaces producing FeMn and 130 μg/dscm for existing furnaces producing SiMn.

With regard to new source limits, as mentioned previously, there are only two furnaces in the source category that produce FeMn, and both furnaces are located at Eramet. The units are similar in design and process the same types of raw materials, and we, therefore, expect little or no difference in the performance of these units. The available emissions data, which show that the two units mean emissions are only 2-percent different, support this hypothesis. We conclude, based on the similarities in the units and the available data, that these two furnaces achieve the same degree of control of PAH emissions with their current control devices. Accordingly, we consider these two units to be equal performers with regard to PAH emissions and therefore, we used all the data from both units to calculate the new source emissions limit. Using the 99-percent UPL calculation, we derive

an emissions limit of 11,500 μg/dscm for new furnaces producing FeMn.

For SiMn, there were no changes to the best performing source and the PAH limit of 72 μg/dscm proposed in the supplemental proposal is the same limit selected for the final rule for new furnaces producing SiMn.

The 99-percent UPL for PAHs for FeMn production is about 8 times higher than the proposed PAH limit for FeMn in the supplemental proposal, whereas the 99-percent UPL for PAHs for SiMn production is comparable to the proposed limit in the supplemental proposal. The new data show there is substantial variability in PAH emissions from the furnaces, especially during FeMn production.

As mentioned in section III.E of this preamble, due to the large variation in PAH emissions from furnace stacks during FeMn production, we are requiring quarterly compliance tests for PAHs (i.e., four PAH compliance tests per year) for furnaces while producing FeMn, with an opportunity for facilities to apply for decreased frequency of such compliance testing from their permit authority after the first year and after four or more successful PAH compliance tests have been completed and submitted to the permit authority.

We expect that any application submitted by an affected source to request reduced frequent compliance testing for PAHs should include information regarding the four or more compliant test results and what factors or conditions are contributing to the quantity and variation of PAH emissions. For example, the application could include, among other things, information about the amounts and types of input materials, types of electrodes used, electrode consumption rates, furnace temperature and other furnace, process or product information that may be affecting the PAH emissions.

The re-evaluation of the Hg test data, which includes the new test data, produced a 99-percent UPL of 130 μg/dscm for existing furnaces producing FeMn and 12 μg/dscm for existing furnaces producing SiMn. For new sources, the new test data did not affect the 99-percent UPL of 4 μg/dscm for new furnaces producing SiMn.

With regard to the new source limit in the supplemental proposal for Hg for furnaces producing FeMn, the proposed new source limit was based on BTF controls using activated carbon injection (ACI), and assuming 90-percent reduction. We continue to conclude that it is appropriate to require BTF controls for new FeMn sources consistent with the supplemental proposal (assuming 90-percent reduction). Therefore, we calculate that the new source limit for the final rule for Hg for furnaces producing FeMn will be 13 μg/dscm (i.e., 130 μg/dscm minus 90-percent control). These UPL values are generally consistent with, but a bit lower than, the proposed limits in the supplemental proposal.

3. What key comments did we receive on the CAA section 112(d)(2) & (3) proposed revisions, and what are our responses?

Several comments were received regarding the CAA section 112(d)(2) & (3) proposed revisions for the Ferroalloys Production source category. The following is a summary of these comments and our responses. Other comments received and our responses can be found in the document titled *National Emission Standards for Hazardous Air Pollutant Emissions: Ferroalloys Production Summary of Public Comments and the EPA's Responses on Proposed Rule (76 FR 72508, November 23, 2011) and Supplemental Proposal (79 FR 60238, October 6, 2014)*, which is available in the docket for this action (EPA–HQ–OAR–2010–0895).

Comment: Commenters claimed the EPA was establishing MACT floors for the newly regulated HAP based on limited data. The commenters noted that for many of these pollutants, there is limited understanding of the mechanism of their generation in the process and the variability in the level of their occurrence. As a result, it is essential that EPA use all reasonably available data in establishing these standards.

The commenters noted the EPA excluded PAH data for both SiMn and FeMn production, that showed higher levels of emissions. They believe the exclusion of these data led to calculation of a proposed MACT floor for PAH that is below the level that can be demonstrably achieved by the best performing sources.

The commenters argued that the EPA should reconsider its decision not to include these data in calculation of the MACT floor. One commenter noted that additional testing to better characterize variability, particularly for PAH, was being performed prior to the comment period for the supplemental proposal and encouraged the EPA to consider these additional data in calculating the MACT floor levels for the final standard.

Response: We have received multiple test reports from the industry during the development of the supplemental proposal and during the comment period for the supplemental proposal. Each test report received was reviewed to determine if the test met the quality assurance/quality control (QA/QC) requirements for this RTR. Only test data that met these requirements were used to estimate emissions used for determining residual risk from the emissions sources and for determining the MACT floor limits. Most data we received passed the QA/QC process and were judged to be valid data and were used in our risk analyses and MACT floor calculations, including data received shortly before publication of the supplemental proposal and data received during the comment period. The final rule MACT floor limits include the updated data. However, a few tests we received previously did not meet the QA/QC requirements and, therefore, were not used in these analyses. For further explanation of the data evaluation, see the *Revised Development of the Risk and Technology Review (RTR) Emissions Dataset for the Ferroalloys Production Source Category for the 2015 Final Rule* document, which is available in the docket.

Even though some of the test data received did not meet the QA/QC requirements for this RTR, we believe we still have a robust set of test data for most of the HAP and the majority of the MACT floor analyses are based on multiple tests from each of the facilities.

Comment: One commenter believes the EPA has not demonstrated that ACI on new furnaces will provide any benefits. The commenter notes that the EPA estimated that Eramet emits only an estimated 274 pounds of Hg per year, and Hg emissions do not contribute to multipathway exposures exceeding an HQ of 1. Thus, reducing Hg emissions would not address any existing risks.

If no added cost was involved, lowering Hg emissions might be a worthwhile objective. But, the fact is that cost is a relevant concern under CAA section 112(d)(2) and, as discussed below, achieving the proposed new source standards would be prohibitively expensive.

The commenter states that the EPA justifies its conclusion that ACI is affordable for new sources based on the assumption that any new source will be built with a baghouse. As a threshold matter, the EPA's assertion that ACI is cost effective when applied to baghouse-controlled sources is contradicted by its own supporting memorandum. According to Table 6–3 of the Memorandum from Bradley Nelson, EC/R, Inc. to Phil Mulrine, EPA OAQPS/SPPD/MICG on *Mercury Control Options and Impacts for the Ferroalloys Production Industry* (Aug. 29, 2014),

adding ACI is 5 times more expensive to add to a baghouse than to a scrubber, and operational costs are 3 times higher. The table, thus, indicates that the cost per pound of Hg removed would be higher, not lower, for EMI's baghouse-controlled source, and EPA's estimated marginal cost is $22,195 per pound, almost twice the cost presented by the EPA in the preamble to the 2014 proposal. Since this is based on an unrealistic removal rate, the unit cost would actually be at least $44,000 per pound of Hg removed.

Second, the commenter states that the sole economic justification for ACI is the EPA's substantially understated unit cost of $17,600 for each pound of Hg removed. The EPA's cost-per-pound metric is completely untethered to any cost-benefit analysis. To say how much it will cost to remove a pound of Hg provides no practical basis for assessing the relative value of removing that pound of Hg or the relative ability of a ferroalloys producer to absorb that cost. The docket contains no demonstration, much less substantial evidence, that the lower cost would nevertheless be affordable by EMI.

Finally, the commenter notes that the facility is captive to the pricing structure imposed by low-cost foreign ferroalloy producers who will not be subject to the requirements of this rule. Accordingly, foreign producers prevent the facility from passing on costs such as this to customers via higher prices. Before that facility can construct a new furnace, it would have to determine that the new furnace would produce a positive return large enough to cover the cost of constructing and operating that additional furnace, while charging the same price charged by producers not incurring the added costs of ACI. The EPA provides no explanation for why it believes this would be possible and our analysis strongly suggests that it would not be possible.

The commenter states that the net result is that the proposed new source standard effectively prevents EMI from increasing FeMn production in the future via a new furnace and ensures that when the existing furnaces require replacement, they will not be replaced with furnaces capable of producing FeMn. The EPA's proposed new source standard is inconsistent with EPA's recognition in the 2014 proposal that EMI is the sole U.S. source of FeMn for domestic steel production, and its judgment that ACI should not be immediately required, in part, because such a requirement would likely force EMI out of business. The proposed Hg ''beyond-the-MACT-floor standard'' produces the same result that the EPA agrees should be avoided, only at a later date.

Response: Activated carbon injection in conjunction with fabric filter technology has been successfully used to reduce emissions of Hg from a number of different industries. In addition, the use of brominated carbon has been used to oxidize the Hg allowing even greater control effectiveness for Hg.

The determination of the Hg limits for new or major reconstructed furnaces is based on the assurance that such sources would be constructed to include a baghouse as the primary PM control device (in order to comply with the proposed lower new source limits for PM) and then they could add ACI after the baghouse for Hg control along with a polishing baghouse and would achieve at least 90-percent reduction of Hg.

In the supplemental proposal, the estimated costs for beyond the floor controls for mercury for new and reconstructed sources were based on the costs of installing and operating brominated ACI and a polishing baghouse. Based on this, in the supplemental proposal, we estimated that the cost effectiveness of BTF controls for a new and major reconstructed FeMn production source would be about $12,000/lb. This cost effectiveness estimate is well within the range of cost effectiveness levels we have decided were reasonable in other rules. Furthermore, no other significant economic factors were identified that would indicate that these limits would be inappropriate or infeasible for new sources. Therefore, in the supplemental proposal, we concluded that BTF controls would be cost-effective and feasible for any new or major reconstructed furnace that produces FeMn.

We received new Hg test data prior to and during the comment period for the supplemental proposal. Using these new test data along with the previous data we re-evaluated the cost of installing ACI to reduce Hg. Similar to the supplemental proposal, we estimated costs for BTF controls for Hg for new and reconstructed sources based on the costs of installing and operating brominated ACI and a polishing baghouse. Based on this re-evaluation, we estimate that the cost effectiveness of installing ACI for a new and major reconstructed FeMn production source would be about $13,600/lb for a furnace producing FeMn 50 percent of the year, and $7,100/lb for a furnace producing FeMn 100 percent of the year.

These cost effectiveness estimates are similar to the estimate we presented in the supplemental proposal for the beyond the floor option for new FeMn furnaces and continue to be within the range of cost effectivenesses we have determined are reasonable for mercury control in other rulemakings. Furthermore, no other significant economic factors were identified that would indicate these limits would be inappropriate or infeasible for new or major reconstructed furnaces that produce FeMn. Therefore, we believe the BTF control option for Hg emissions is economically and technically feasible for new and major reconstructed FeMn furnaces and that these cost effectivenesses are acceptable for any new or major reconstructed furnace that produces FeMn. Additional discussion of the EPA's BTF analyses for mercury are available in the *Final Rule Mercury Control Options and Impacts for the Ferroalloys Production Industry* document and in the *Mercury Control Options and Impacts for the Ferroalloys Production Industry* document (dated August 2014) that EPA published in support of the 2014 supplemental proposal. These documents are available in the docket for this action.

An assessment of the cost effectiveness of emission reductions, along with other economic factors, is an appropriate method for assessing cost impacts in standard setting when CAA section 112 allows cost to be a factor in EPA's decision-making. Nothing in CAA section 112 compels EPA to use cost-benefit analysis in standard-setting decisions. Moreover, to the extent the commenter bases its position that the new source BTF standard for mercury lacks benefits because it does not address ''any existing risk,'' the court of appeals has held that risk is not a consideration when setting MACT standards, as in *Sierra Club* v. *EPA*, 353 F.3d 976, 981 (D.C. Cir. 2004). The emission standards in this rule discharge EPA's CAA section 112(d)(2) duties with respect to Hg emissions from new and existing electric arc furnaces in this source category.

4. What is the rationale for our final approach for the CAA section 112(d)(2) and (3) revisions?

We evaluated and rejected BTF options for the CAA section 112(d)(2) and (3) revisions in the supplemental proposal and proposed MACT floor emissions limits for formaldehyde, HCl, Hg, and PAH for existing sources. We also evaluated and rejected BTF options for new sources for formaldehyde, HCl, and PAHs. For Hg, we also evaluated BTF options for new furnaces. We rejected BTF for new SiMn furnaces. However, we proposed BTF limits for Hg for FeMn furnaces. See the *Revised*

MACT Floor Analysis for the Ferroalloys Production Source Category document and the *Final Rule Mercury Control Options and Impacts for the Ferroalloys Production Industry* document, which are available in the docket.

We are promulgating MACT floor-based limits for the four HAP described above for existing sources under CAA section 112(d)(2) and (3) as described above, which is the same approach as in the supplemental proposal. Regarding new sources, we are promulgating MACT floor limits for new sources for formaldehyde, HCl, and PAHs, and for Hg for new SiMn furnaces. However, we are promulgating a BTF limit for Hg for FeMn furnaces.

The limits for HCl and formaldehyde are exactly the same as proposed. The Hg limits for FeMn and SiMn production and PAH limits for SiMn production changed slightly due to the inclusion of additional data. The only significant change was for the PAH limit for FeMn production, which is about 8 times higher than what we proposed. In our supplemental proposal, we provided notice of receipt of the highest test data (i.e., the data received in August 2014) which when combined with the other data resulted in a higher PAH limit. While these data had not been completely QA/QCed before the supplemental proposal, both the method for calculating a limit and most of the data on which the final limit was calculated were available and addressed in the supplemental proposal. Furthermore, commenters agreed that the final limit should be based on all available valid data. As we stated previously, any changes to the Hg and PAH emissions limits were a result of using all of the available valid data which resulted in a change to the MACT floor calculations. Additional data received during the comment period confirmed a higher PAH limit was justified.

D. What changes did we make to the Ferroalloys Production opacity monitoring requirement?

1. What changes did we propose for the ferroalloys production opacity monitoring requirement?

In the 2014 supplemental proposal, the EPA solicited comment regarding the use of new technologies to provide continuous or near continuous long term approaches to monitoring emissions from industrial sources such as the ferroalloys production facilities within this source category. Specifically, we were seeking comment on the feasibility and practice associated with the use of automated opacity monitoring with ASTM D7520–13, using DCOT at fixed points to interpret visible emissions from roof vents associated with the processes at each facility, and how this technology could potentially be included as part of the requirements in the NESHAP for ferroalloys production sources.

2. How did the opacity monitoring requirements change for the Ferroalloys Production source category?

Based on the information we received during the comment period for the supplemental proposal and after further evaluation of the technology, we believe that the use of DCOT can provide opacity readings comparable to Method 9 and reduce the burden of requiring a person to conduct opacity readings over the furnace cycle. Furthermore, the DCOT provides objective and well-substantiated readings of opacity. The DCOT camera provides an image that the facility could access immediately, with QA/QC done within 45 minutes to validate the image and initial readings. In comparison, it would take a field observer roughly 30 minutes to return from the field and average their manually assembled data such that they can report the average that they recorded over the previous 90 minutes of observations. We view the initial visible recording as sufficient evidence to provide the facility enough reason to initiate, investigate, and correct concerns that may create elevated visual emissions observations, and the 45-minute turnaround time on actual opacity values to be quick enough to provide a facility the confirmation they would need to be assured that they have taken appropriate action.

3. What key comments did we receive on the opacity monitoring requirement, and what are our responses?

Comment: In their supplemental proposal comments, one commenter objects to the significantly increased frequency of opacity observations from once every 5 years to weekly. They note that the Agency states that the frequency is ''appropriate'' to demonstrate compliance with the process fugitive standard with the enhanced frequency presumably substituting for the continuous negative pressure monitoring obligations from the 2011 proposal.

The commenter believes that this explanation overlooks the stringent continuous monitoring that the proposed rule already requires to ensure that the process fugitives control system meets the 95-percent capture requirement. First, the facility must develop a plan to demonstrate 95-percent capture, and that plan must be approved by the permitting authority. Next, the facility must perform an initial compliance demonstration. The facility must then identify specific parameters, either through the engineering assessment or the initial compliance demonstration, that are indicative of compliance with the opacity standard. Finally, on an ongoing basis, the facility must routinely monitor those parameters.

The commenter notes that an initial compliance demonstration and ongoing monitoring is a standard regulatory approach required in any number of MACT standards. However, none of these other standards require weekly testing to confirm that the parameters and limits are still being met and many other standards require re-testing only every 5 years, or at most annually. They believe that nothing in the current proposal demonstrates why it is necessary or appropriate to deviate from this standard approach here.

Two commenters believe that the proposed weekly opacity testing will impose significant ongoing costs on the facilities for no additional environmental benefit. They believe that the ongoing parametric monitoring is sufficient to ensure compliance on an ongoing basis.

These commenters believe that the weekly opacity reading requirement is overly burdensome, especially for Eramet because they have three shop buildings. They estimate 3–5 hours per building opacity reading for a total of 9–15 hours a week for reading opacity.

Response: We re-evaluated the opacity monitoring requirements in the supplemental proposal and determined that the DCOT and ASTM D7520–13 provided a development that ensures compliance with the fugitive emissions standards, as well as reduces the labor burden on the facilities. After initial setup, the DCOT can measure the opacity during the furnace process cycle without any labor needed. In addition, facilities would not have the cost of annual certification as is the case with Method 9. We estimate that the overall costs of DCOT and ASTM D7520–13 will be approximately the same as what the overall costs would be if facilities used method 9. In addition, due to the baseline unacceptable risk finding being based largely on process fugitive manganese emissions, we believe the frequent opacity readings using the objective and substantiated results of DCOT are warranted to ensure fugitive emissions are effectively captured and controlled. However, after considering comments, we decided to allow facilities an opportunity to reduce the

frequency of opacity readings to once per month per furnace building (instead of weekly) if the facility achieves 26 consecutive compliant weekly readings for that furnace building. This reduction in frequency will reduce the cost burden for the facilities. However, if any of the subsequent monthly readings exceed the opacity limit for that furnace building, the facility must return to weekly readings until they achieve another 26 compliant weekly readings, at which time the facility can return to monthly readings.

Comment: One commenter supported the EPA's determination that opacity observations should be measured over a furnace process cycle. However, because all furnaces at the Felman facility are located in the same building, the commenter suggests treating the building as a single opacity source, and that opacity observations be conducted over a time period that captures a full furnace process cycle from each furnace within that building.

Response: We agree with the commenter and have revised the opacity requirements to include opacity determinations from buildings with multiple furnaces. The requirement will treat the building with multiple furnaces as a single opacity source and the opacity readings will be conducted over a time period that will include tapping from each of the furnaces in operation.

Comment: In comments on the supplemental proposal, two commenters state that the EPA should require the use of the best available testing method, digital opacity monitoring. The commenters describe the benefits of the DCOT compared to Method 9 and provide supporting documentation. In particular, one commenter supports the DCOT because it is EPA certified as a valid test method for opacity and approved for its use, the use of a camera creates a good electronic record of the observations, conditions, location, etc., and a number of regulated entities are using this method to assess opacity. The commenter adds that using cameras can save resources, citing a Department of Defense project to reduce Method 9 certification costs. The commenter adds that the EPA should also require opacity determinations to be documented on an electronic form and provided on the Internet in real time for public review.

One commenter adds that the EPA should not allow Method 9 to be used, unless there is a power outage requiring the facility to use Method 9 to assure opacity standard compliance. They also add that instead of Method 9, the EPA should require a source to use either continuous opacity monitor or DCOT.

Response: We evaluated the use of DCOT and the ASTM D7520–13 method and determined that this technology provides the same compliance assurance as Method 9 measurements with approximately the same overall burden on the facilities and the DCOT provides reliable, unbiased opacity readings. Therefore, we are requiring opacity determinations to be made using DCOT and ASTM D7520–13. With regard to the comment suggesting that the DCOT results be documented in an electronic format and provided on the internet in real time, the DCOT results will be recorded in an electronic format. Furthermore, use of the DCOT will improve transparency of opacity monitoring results. However, we do not have a system established to provide these results on the internet in real time. Furthermore, the ERT is not yet configured to be able to accept the DCOT compliance images. Nevertheless, the rule requires the affected sources to maintain electronic records of the DCOT results and submit periodic compliance monitoring reports to the Administrator or permit authority. We believe that the public will be able to obtain copies of the compliance results within a reasonable amount of time by contacting the EPA and/or the permit authority through the appropriate channels.

Comment: One commenter requests a clarification to the proposed regulatory language: That EPA add the phrase ''over a furnace process cycle'' at the end of 40 CFR 63.1623(b)(3). As written in the supplemental proposal, the language requires that opacity emissions not exceed 8 percent, but no averaging time is specified. The proposed subsections, § 63.1623(b)(3)(i) though (iii) stated that the compliance demonstration for this obligation must be determined over the course of an entire furnace process cycle, but they do not clearly state that the limit itself is 8 percent over the entire furnace process cycle, and not, for example, an instantaneous limit, or 8 percent over a 6-minute period. To avoid misunderstanding, this averaging period should be stated clearly as part of the standard itself.

Response: We agree with the commenter and have included language that clarifies the opacity requirement in the final rule.

4. What is the rationale for our final decision for the opacity monitoring requirement?

We are finalizing requirements to measure opacity from the furnace buildings using ASTM D7520–13 and digital camera technology because we conclude this is the best method to ensure reliable and unbiased readings for opacity. We are also finalizing the requirement that facilities need to meet an average opacity standard of no more than 8-percent opacity for each furnace cycle. Furthermore, we are finalizing the requirement that at no time during operation may any two consecutive 6-minute block opacity readings (12-minute period) be greater than 20-percent opacity.

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

A. What are the affected facilities?

Eramet Marietta Incorporated, in Marietta, Ohio and Felman Production LLC, in Letart West Virginia, are the 2 manganese ferroalloys production facilities currently operating in the United States that will be affected by these amendments. We do not know of any new facilities that are expected to be constructed in the foreseeable future. However, there is one other facility that has a permit to produce FeMn or SiMn in an electric arc furnace, but it is not doing so at present. It is possible, however, that this facility could resume production or another non-manganese ferroalloy producer could decide to commence production of FeMn or SiMn. Given this uncertainty, our impact analysis is focused on the two existing sources that are currently operating.

B. What are the air quality impacts?

As noted in the 2011 proposal, emissions of metal HAP from ferroalloys production sources have declined in recent years, primarily as the result of state actions and also due to the industry's own initiative. The final amendments in this rule would cut HAP emissions (primarily particulate metal HAP such as manganese, arsenic, and nickel) by about 60 percent from their current levels. Under the final emissions standards for process fugitives emissions from the furnace building, we estimate that the HAP emissions reductions would be 77 tpy, including significant reductions of manganese.

C. What are the cost impacts?

Under the revised final amendments, each ferroalloys production facility is expected to incur costs for the design, installation and operation of an enhanced local capture system. Each facility also is expected to incur costs associated with the installation of additional control devices to manage the air flows generated by the enhanced

capture systems. There would also be capital costs associated with installing new or improved continuous monitoring systems, including installation of BLDS on the furnace baghouses that are not currently equipped with these systems and installation and operation of DCOT systems to monitor opacity.

The revised capital costs for each facility were estimated based on the projected number and types of upgrades required. The specific enhancements for each facility were selected for cost estimation based on estimates directly provided by the facilities based on their engineering analyses and discussions with the EPA. The *Cost Impacts of Control Options to Address Fugitive HAP Emissions for the Ferroalloys Production NESHAP Supplemental Proposal* document includes a complete description of the revised cost estimate methods used for this analysis and is available in the docket.

Cost elements vary by plant and furnace and include the following elements:

- Curtains or doors surrounding furnace tops to contain fugitive emissions;
- Improvements to hoods collecting tapping emissions;
- Upgraded fans to improve the airflow of fabric filters controlling fugitive emissions;
- Addition of ''secondary capture'' or additional hoods to capture emissions from tapping platforms or crucibles;
- Addition of fugitives capture for casting operations;
- Improvement of existing control devices or addition of fabric filters; and
- Addition of rooftop ventilation, in which fugitive emissions escaping local control are collected in the roof canopy over process areas through addition of partitions and hoods, then directed through roof vents and ducts to control devices.

For purposes of the analysis for the final rule, we assumed that enhanced capture systems and roofline ventilation will be installed for all operational furnaces at both facilities and for MOR operations at Eramet Marietta. The specific elements of the capture and control systems selected for each facility are based on information supplied by the facilities incorporating their best estimates of the improvements to fugitive emission capture and control they would implement to achieve the standards included in the final rule. We estimate the total capital costs of installing the required ductwork, fans, control devices, and monitoring to comply with the enhanced capture system requirements to be $40.3 million and the total annualized cost to be $7.7 million (2012 dollars) for the two plants. We estimate that enhanced capture and control systems required by this rule will reduce metal HAP emissions by 75 tons, resulting in a cost per ton of metal HAP removed to be $106,000 per ton ($53 per pound). The total HAP reduction for the enhanced capture and control systems is estimated to be 77 tpy at a cost per ton of $103,000 per ton ($52 per pound). We also estimate that these systems will achieve PM emission reductions of 229 tpy, resulting in cost per ton of PM removed of $34,600 per ton and achieve $PM_{2.5}$ emission reductions of 48 tpy, resulting in a cost per ton of $PM_{2.5}$ removal of $165,000 per ton.

D. What are the economic impacts?

As a result of the requirements in this final rule, we estimate that the total capital cost for the Eramet facility will be about $25.4 million and the total annualized costs will be about $5.6 million (in 2012 dollars). For impacts to Felman Production LLC, this facility is estimated to incur a total capital cost of $14.9 million and a total annualized costs of just under $2.1 million (in 2012 dollars). In total, these costs could lead to an increase in annualized cost of about 1.9 percent of sales, which serves as an estimate for the increase in product prices, and a decrease in output of as much as 10.1 percent. For more information regarding economic impacts, please refer to the *Economic Impact Analysis* report and the summary of public comments and EPA's responses document which are included in the public docket for this final rule.

E. What are the benefits?

The estimated reductions in HAP emissions (*i.e.*, about 77 tpy) that will be achieved by this action will provide significant benefits to public health. For example, there will be a significant reduction in emissions of HAP metals (especially manganese, arsenic, nickel, chromium, cadmium, and lead). The rule will also achieve some reductions of Hg and PAHs. In addition to the HAP reductions, we also estimate that this final rule will reduce 48 tons in $PM_{2.5}$ emissions as a co-benefit of the HAP reductions annually.

This rulemaking is not an ''economically significant regulatory action'' under Executive Order 12866 because it is not likely to have an annual effect on the economy of $100 million or more. Therefore, we have not conducted a Regulatory Impact Analysis (RIA) for this rulemaking or a benefits analysis. While we expect that these avoided emissions will result in improvements in air quality and reduce health effects associated with exposure to HAP associated with these emissions, we have not quantified or monetized the benefits of reducing these emissions for this rulemaking. This does not imply that there are no benefits associated with these emission reductions. In fact, our demographic analysis indicates that thousands of people live within 50 kilometers of these two facilities and these people will experience benefits because of the reduced exposure to air toxics due to this rulemaking.

When determining if the benefits of an action exceed its costs, Executive Orders 12866 and 13563 direct the Agency to consider qualitative benefits that are difficult to quantify but essential to consider. Controls installed to reduce HAP would also reduce ambient concentrations of $PM_{2.5}$ as a co-benefit. Reducing exposure to $PM_{2.5}$ is associated with significant human health benefits, including avoided premature mortality and morbidity from cardiovascular and respiratory illnesses. Researchers have associated $PM_{2.5}$ exposure with adverse health effects in numerous toxicological, clinical and epidemiological studies (U.S. EPA, 2009).[4] When adequate data and resources are available and an RIA is required, the EPA generally quantifies several health effects associated with exposure to $PM_{2.5}$ (U.S. EPA, 2012).[5] These health effects include premature mortality for adults and infants, cardiovascular morbidities such as heart attacks, hospital admissions and respiratory morbidities such as asthma attacks, acute bronchitis, hospital and emergency department visits, work loss days, restricted activity days, and respiratory symptoms. The scientific literature also suggests that exposure to $PM_{2.5}$ is also associated with adverse effects on birth weight, pre-term births, pulmonary function and other cardiovascular and respiratory effects (U.S. EPA, 2009), but the EPA has not quantified certain outcomes of these impacts in its benefits analyses. $PM_{2.5}$ also increases light extinction, which is

[4] U.S. Environmental Protection Agency (U.S. EPA). 2009. *Integrated Science Assessment for Particulate Matter (Final Report).* EPA–600–R–08–139F. National Center for Environmental Assessment—RTP Division. Available on the Internet at *http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=216546.*

[5] U.S. Environmental Protection Agency (U.S. EPA). 2012. *Regulatory Impact Analysis for the Proposed Revisions to the National Ambient Air Quality Standards for Particulate Matter.* Office of Air and Radiation, Research Triangle Park, NC. Available on the Internet at *http://www.epa.gov/ttnecas1/regdata/RIAs/PMRIACombinedFile_Bookmarked.pdf.*

an important aspect of reduced visibility.

The rulemaking is also anticipated to reduce emissions of other HAP, including metal HAP (arsenic, cadmium, chromium (both total and hexavalent), lead compounds, manganese, and nickel) and PAHs. Some of these HAP are carcinogenic (e.g., arsenic, PAHs) and some are toxic and have effects other than cancer (e.g., kidney disease from cadmium, respiratory, and immunological effects from nickel). While we cannot quantitatively estimate the benefits achieved by reducing emissions of these HAP, qualitative benefits are expected as a result of reducing exposures to these HAP. More information about the health effects of these HAP can be found on the IRIS,[6] ATSDR,[7] and California EPA [8] Web pages.

F. What analysis of environmental justice did we conduct?

As explained in section IV.A of this preamble, we assessed the impacts to various demographic groups. The methodology and the results of the analyses are described in the *Risk and Technology Review—Analysis of Socio-Economic Factors for Populations Living Near Ferroalloys Facilities*, which is available in the docket.

Based on that assessment, we conclude that this final rule will reduce the number of people exposed to elevated risks, from approximately 41,000, to about 26,000 people exposed to a potential cancer risk greater than or equal to 1-in-1 million and from 1,300 to zero people exposed to a potential chronic noncancer hazard level of 1. Based on this analysis, the EPA has determined that these final rule requirements will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it increases the level of environmental protection for all affected populations. See Section VI.J of this preamble for more information.

G. What analysis of children's environmental health did we conduct?

This action is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because the Agency does not believe the environmental health risks or safety risks addressed by this action present a disproportionate risk to children. The report, *Analysis of Socio-Economic Factors for Populations Living Near Ferroalloys Facilities*, which is available in the docket, shows that, prior to the implementation of the provisions included in this final rule, on a nationwide basis, there are approximately 41,000 people exposed to a cancer risk at or above 1-in-1 million and approximately 1,300 people exposed to a chronic noncancer TOSHI greater than 1 due to emissions from the source category. The percentages for all demographic groups (with the exception of those ages 65 and older, which is only slightly higher than the national average), including children 18 years and younger, are similar to or lower than their respective nationwide percentages. Further, implementation of the provisions included in this action is expected to significantly reduce the number of at-risk people due to HAP emissions from these sources (from approximately 41,000 to about 26,000 for cancer risks and from 1,300 to zero for chronic noncancer hazards), providing significant benefit to all demographic groups.

This rule is expected to reduce environmental impacts for everyone, including children. This action establishes emissions limits at the levels based on MACT, as required by the CAA. Based on our analysis, we believe that this rule does not present a disproportionate risk to children because it increases the level of environmental protection for all affected populations.

VI. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at *http://www2.epa.gov/laws-regulations/laws-and-executive-orders*.

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

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

B. Paperwork Reduction Act (PRA)

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 2488.01. You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here. The information collection requirements are not enforceable until OMB approves them.

The information requirements in this rulemaking are based on the notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to national emission standards. These notifications, reports, and records are essential in determining compliance, and are specifically authorized by CAA section 114 (42 U.S.C. 7414). All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to agency policies set forth in 40 CFR part 2, subpart B.

Respondents/affected entities: New and existing ferroalloys production facilities that produce FeMn and SiMn and are either major sources of HAP emissions or are co-located at major sources of HAP.

Respondent's obligation to respond: Mandatory (42 U.S.C. 7414).

Estimated number of respondents: 2.

Frequency of response: Semiannual.

Total estimated burden: 707 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: $0.85 million (per year), includes $0.78 million annualized capital or operation & maintenance costs.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9. 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. The small entities subject to the requirements of this action are businesses that can be classified as small firms using the Small Business Administration size standards for their respective industries. The agency has determined that neither of the companies affected by this rule is considered to be a small entity. Details of this analysis are presented in the memorandum, *Economic Impact Analysis for Risk and Technology Review: Ferroalloys Production Source*

[6] U.S. EPA, 2006. Integrated Risk Information System. *http://www.epa.gov/iris/index.html.*

[7] U.S. Agency for Toxic Substances and Disease Registry, 2006. *Minimum Risk Levels (MRLs) for Hazardous Substances. http://www.atsdr.cdc.gov/mrls/index.html.*

[8] CA Office of Environmental Health Hazard Assessment, 2005. *Chronic Reference Exposure Levels Adopted by OEHHA as of December 2008. http://www.oehha.ca.gov/air/chronic_rels.*

Category, which is available in the docket for this action.

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. The action imposes no enforceable duty on any state, local, or tribal governments, or on 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. There are no ferroalloys production facilities that are owned or operated by tribal governments. Thus, Executive Order 13175 does not apply to this action.

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

This action is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866, and because the EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. This action's health and risk assessments are contained in the *Residual Risk Assessment for the Ferroalloys Production Source Category in Support of the 2015 Risk and Technology Review Final Rule document*, which is available in the docket for this action, and are discussed in section V.G of this preamble.

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

This action is not subject to Executive Order 13211 because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act and 1 CFR Part 51

This final rule involves technical standards. EPA decided to use ASME PTC 19.10–1981, ''Flue and Exhaust Gas Analyses,'' for its manual methods of measuring the oxygen or carbon dioxide content of the exhaust gas. These parts of ASME PTC 19.10–1981 are acceptable alternatives to EPA Method 3B. This standard is available from the American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016–5990.

The EPA has also decided to use ASTM D7520–13, Standard Test Method for Determining the Opacity in a Plume in an Outdoor Ambient Atmosphere, for measuring opacity from the shop buildings. This standard is an acceptable alternative to EPA Method 9 and is available from the American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428–2959. See *http://www.astm.org/*.

In addition, the EPA has decided to use California Air Resources Board Method 429, Determination of Polycyclic Aromatic Hydrocarbon (PAH) Emissions from Stationary Sources for measuring PAH emissions from the furnace control device. This method is an acceptable alternative to EPA Method 0010 and is available from the California Air Resources Board (CARB), Engineering and Certification Branch, 1001 I Street, P.O. Box 2815, Sacramento, CA 95812–2815. See *http://www.arb.ca.gov/testmeth/vol3/M_429.pdf*.

The EPA has also decided to use EPA Methods 1, 2, 3A, 3B, 4, 5, 5D, 10, 26A, 29, 30B, 316 of 40 CFR part 60, appendix A. No applicable VCS were identified for EPA Methods 30B, 5D, 316.

Under 40 CFR 63.7(f) and 40 CFR 63.8(f) of subpart A of the General Provisions, a source may apply to the EPA for permission to use alternative test methods or alternative monitoring requirements in place of any required testing methods, performance specifications, or procedures in this final rule.

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

The EPA has determined that the current health risks posed by emissions from this source category are unacceptable. There are up to 41,000 people living in close proximity to the two facilities that are currently subject to health risks which may not be considered negligible (*i.e.*, cancer risks greater than 1-in-1 million or chronic noncancer TOSHI greater than 1) due to emissions from this source category. The demographic makeup of this population is similar to the national distribution for all demographic groups, with the exception of those ages 65 and older, which is slightly higher than the national average. This final rule will reduce the number of people in this group, from approximately 41,000, to about 26,000 people exposed to a cancer risk greater than or equal to 1-in-1 million and from 1,300 to zero people for a chronic noncancer hazard index of 1. The EPA believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income, or indigenous populations because it increases the level of environmental protection for all affected populations. The results of this evaluation are contained in section IV.A of this preamble. A copy of this methodology and the results of the demographic analysis are included in a technical report, *Risk and Technology Review—Analysis of Socio-Economic Factors for Populations Living Near Ferroalloys Facilities*, which is available in the docket for this action.

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 for 40 CFR Part 63

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

Dated: May 28, 2015.

Gina McCarthy,

Administrator.

For the reasons stated in the preamble, the Environmental Protection Agency is amending title 40, chapter I, part 63 of the Code of Federal Regulations (CFR) 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:

■ a. By revising paragraph (f)(1);

■ b. By redesignating paragraphs (g)(87) through (94) as paragraphs (g)(88) through (95), respectively;
■ c. By adding new paragraph (g)(87);
■ d. By revising paragraph (j) introductory text;
■ e. By redesignating paragraphs (j)(1) through (3) as paragraphs (j)(2) through (4), respectively; and
■ f. By adding new paragraph (j)(1).

The revisions and additions read as follows:

§ 63.14 Incorporations by reference.

* * * * *

(f) * * *

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

* * * * *

(g) * * *

(87) ASTM D7520–13, ''Standard Test Method for Determining the Opacity in a Plume in an Outdoor Ambient Atmosphere,'' Approved December 1, 2013, IBR approved for §§ 63.1625(b).

* * * * *

(j) California Air Resources Board (CARB), 1001 I Street, P.O. Box 2815, Sacramento, CA 95812–2815, Telephone (916) 327–0900, *http://www.arb.ca.gov/*.

(1) Method 429, Determination of Polycyclic Aromatic Hydrocarbon (PAH) Emissions from Stationary Sources, Adopted September 12, 1989, Amended July 28, 1997, IBR approved for § 63.1625(b).

* * * * *

Subpart XXX—National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production: Ferromanganese and Silicomanganese

■ 3. Sections 63.1620 through 63.1629 are added to read as follows:

Sec.

63.1620 Am I subject to this subpart?
63.1621 What are my compliance dates?
63.1622 What definitions apply to this subpart?
63.1623 What are the emissions standards for new, reconstructed and existing facilities?
63.1624 What are the operational and work practice standards for new, reconstructed, and existing facilities?
63.1625 What are the performance test and compliance requirements for new, reconstructed, and existing facilities?
63.1626 What monitoring requirements must I meet?
63.1627 What notification requirements must I meet?
63.1628 What recordkeeping and reporting requirements must I meet?
63.1629 Who implements and enforces this subpart?

* * * * *

§ 63.1620 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a new or existing ferromanganese and/or silicomanganese production facility that is a major source or is co-located at a major source of hazardous air pollutant emissions.

(b) You are subject to this subpart if you own or operate any of the following equipment as part of a ferromanganese and/or silicomanganese production facility:

(1) Electric arc furnace;

(2) Casting operations;

(3) Metal oxygen refining (MOR) process;

(4) Crushing and screening operations;

(5) Outdoor fugitive dust sources.

(c) A new affected source is any of the equipment listed in paragraph (b) of this section for which construction or reconstruction commenced after June 30, 2015.

(d) Table 1 of this subpart specifies the provisions of subpart A of this part that apply to owners and operators of ferromanganese and silicomanganese production facilities subject to this subpart.

(e) If you are subject to the provisions of this subpart, you are also subject to title V permitting requirements under 40 CFR part 70 or 71, as applicable.

(f) Emission standards in this subpart apply at all times.

§ 63.1621 What are my compliance dates?

(a) Existing affected sources must be in compliance with the provisions specified in §§ 63.1620 through 63.1629 no later than June 30, 2017.

(b) Affected sources in existence prior to June 30, 2015 must be in compliance with the provisions specified in §§ 63.1650 through 63.1661 by November 21, 2001 and until June 30, 2017. As of June 30, 2017, the provisions of §§ 63.1650 through 63.1661 cease to apply to affected sources in existence prior to June 30, 2015. The provisions of §§ 63.1650 through 63.1661 remain enforceable at a source for its activities prior to June 30, 2017.

(c) If you own or operate a new affected source that commences construction or reconstruction after November 23, 2011, you must comply with the requirements of this subpart by June 30, 2015, or upon startup of operations, whichever is later.

§ 63.1622 What definitions apply to this subpart?

Terms in this subpart are defined in the Clean Air Act (Act), in subpart A of this part, or in this section as follows:

Bag leak detection system means a system that is capable of continuously monitoring particulate matter (dust) loadings in the exhaust of a baghouse in order to detect bag leaks and other upset conditions. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other effect to continuously monitor relative particulate matter loadings.

Capture system means the collection of components used to capture the gases and fumes released from one or more emissions points and then convey the captured gas stream to a control device or to the atmosphere. A capture system may include, but is not limited to, the following components as applicable to a given capture system design: Duct intake devices, hoods, enclosures, ductwork, dampers, manifolds, plenums, fans and roofline ventilation systems.

Casting means the period of time from when molten ferroalloy is removed from the tapping station until the pouring into casting molds or beds is completed. This includes the following operations: Pouring alloy from one ladle to another, slag separation, slag removal and ladle transfer by crane, truck, or other conveyance.

Crushing and screening equipment means the crushers, grinders, mills, screens and conveying systems used to crush, size and prepare for packing manganese-containing materials, including raw materials, intermediate products and final products.

Electric arc furnace means any furnace where electrical energy is converted to heat energy by transmission of current between electrodes partially submerged in the furnace charge. The furnace may be of an open, semi-sealed, or sealed design.

Furnace process cycle means the period in which the furnace is tapped to the time in which the furnace is tapped again and includes periods of charging, smelting, tapping, casting and ladle raking. For multiple furnaces operating within a single shop building, furnace process cycle means a period sufficient

to capture a full cycle of charging, smelting, tapping, casting and ladle raking for each furnace within the shop building.

Ladle treatment means a post-tapping process including metal and alloy additions where chemistry adjustments are made in the ladle after furnace smelting to achieve a specified product.

Local ventilation means hoods, ductwork, and fans designed to capture process fugitive emissions close to the area where the emissions are generated (*e.g.*, tap hoods).

Metal oxygen refining (MOR) process means the reduction of the carbon content of ferromanganese through the use of oxygen.

Outdoor fugitive dust source means a stationary source from which hazardous air pollutant-bearing particles are discharged to the atmosphere due to wind or mechanical inducement such as vehicle traffic. Fugitive dust sources include plant roadways, yard areas and outdoor material storage and transfer operation areas.

Plant roadway means any area at a ferromanganese and silicomanganese production facility that is subject to plant mobile equipment, such as forklifts, front end loaders, or trucks, carrying manganese-bearing materials. Excluded from this definition are employee and visitor parking areas, provided they are not subject to traffic by plant mobile equipment.

Process fugitive emissions source means a source of hazardous air pollutant emissions that is associated with a ferromanganese or silicomanganese production facility and is not a fugitive dust source or a stack emissions source. Process fugitive sources include emissions that escape capture from the electric arc furnace, tapping operations, casting operations, ladle treatment, MOR or crushing and screening equipment.

Roofline ventilation system means an exhaust system designed to evacuate process fugitive emissions that collect in the roofline area to a control device.

Shop building means the building which houses one or more electric arc furnaces or other processes that generate process fugitive emissions.

Shutdown means the cessation of operation of an affected source for any purpose.

Startup means the setting in operation of an affected source for any purpose.

Tapping emissions means the gases and emissions associated with removal of product from the electric arc furnace under normal operating conditions, such as removal of metal under normal pressure and movement by gravity down the spout into the ladle and filling the ladle.

Tapping period means the time from when a tap hole is opened until the time a tap hole is closed.

§ 63.1623 What are the emissions standards for new, reconstructed and existing facilities?

(a) *Electric arc furnaces.* You must install, operate and maintain an effective capture system that collects the emissions from each electric arc furnace operation and conveys the collected emissions to a control device for the removal of the pollutants specified in the emissions standards specified in paragraphs (a)(1) through (5) of this section.

(1) *Particulate matter emissions.* (i) You must not discharge exhaust gases from each electric arc furnace operation containing particulate matter in excess of 4.0 milligrams per dry standard cubic meter (mg/dscm) into the atmosphere from any new or reconstructed electric arc furnace.

(ii) You must not discharge exhaust gases from each electric arc furnace operation containing particulate matter in excess of 25 mg/dscm into the atmosphere from any existing electric arc furnace.

(2) *Mercury emissions.* (i) You must not discharge exhaust gases from each electric arc furnace operation containing mercury emissions in excess of 13 micrograms per dry standard cubic meter (μg/dscm) into the atmosphere from any new or reconstructed electric arc furnace when producing ferromanganese.

(ii) You must not discharge exhaust gases from each electric arc furnace operation containing mercury emissions in excess of 130 μg/dscm into the atmosphere from any existing electric arc furnace when producing ferromanganese.

(iii) You must not discharge exhaust gases from each electric arc furnace operation containing mercury emissions in excess of 4 μg/dscm into the atmosphere from any new or reconstructed electric arc furnace when producing silicomanganese.

(iv) You must not discharge exhaust gases from each electric arc furnace operation containing mercury emissions in excess of 12 μg/dscm into the atmosphere from any existing electric arc furnace when producing silicomanganese.

(3) *Polycyclic aromatic hydrocarbon emissions.* (i) You must not discharge exhaust gases from each electric arc furnace operation containing polycyclic aromatic hydrocarbon emissions in excess of 12,000 μg/dscm into the atmosphere from any new or reconstructed electric arc furnace when producing ferromanganese.

(ii) You must not discharge exhaust gases from each electric arc furnace operation containing polycyclic aromatic hydrocarbon emissions in excess of 12,000 μg/dscm into the atmosphere from any existing electric arc furnace when producing ferromanganese.

(iii) You must not discharge exhaust gases from each electric arc furnace operation containing polycyclic aromatic hydrocarbon emissions in excess of 72 μg/dscm into the atmosphere from any new or reconstructed electric arc furnace when producing silicomanganese.

(iv) You must not discharge exhaust gases from each electric arc furnace operation containing polycyclic aromatic hydrocarbon emissions in excess of 130 μg/dscm into the atmosphere from any existing electric arc furnace when producing silicomanganese.

(4) *Hydrochloric acid emissions.* (i) You must not discharge exhaust gases from each electric arc furnace operation containing hydrochloric acid emissions in excess of 180 μg/dscm into the atmosphere from any new or reconstructed electric arc furnace.

(ii) You must not discharge exhaust gases from each electric arc furnace operation containing hydrochloric acid emissions in excess of 1,100 μg/dscm into the atmosphere from any existing electric arc furnace.

(5) *Formaldehyde emissions.* You must not discharge exhaust gases from each electric arc furnace operation containing formaldehyde emissions in excess of 201 μg/dscm into the atmosphere from any new, reconstructed or existing electric arc furnace.

(b) *Process fugitive emissions.* (1) You must install, operate and maintain a capture system that is designed to collect 95 percent or more of the emissions from process fugitive emissions sources and convey the collected emissions to a control device that is demonstrated to meet the applicable emission limit specified in paragraph (a)(1) or (c) of this section.

(2) The determination of the overall capture must be demonstrated as required by § 63.1624(a).

(3) Unless you meet the criteria of paragragh (b)(3)(iii) of this section, you must not cause the emissions exiting from a shop building to exceed an average of 8 percent opacity over a furnace or MOR process cycle.

(i) This 8 percent opacity requirement is determined by averaging the

individual opacity readings observed during the furnace or MOR process cycle.

(ii) An individual opacity reading shall be determined as the average of 24 consecutive images recorded at 15-second intervals with the opacity values from each individual digital image rounded to the nearest 5 percent.

(iii) If the average opacity from the shop building is greater than 8 percent opacity during an observed furnace or MOR process cycle, the opacity of two more additional furnace or MOR process cycles must be observed within 7 days and the average of the individual opacity readings during the three observation periods must be less than 8 percent opacity.

(iv) At no time during operation may the average of any two consecutive individual opacity readings be greater than 20 percent opacity.

(c) *Local ventilation emissions.* If you operate local ventilation to capture tapping, casting, or ladle treatment emissions and direct them to a control device other than one associated with the electric arc furnace, you must not discharge into the atmosphere any captured emissions containing particulate matter in excess of 4.0 mg/dscm.

(d) *MOR process.* You must not discharge into the atmosphere from any new, reconstructed or existing MOR process exhaust gases containing particulate matter in excess of 3.9 mg/dscm.

(e) *Crushing and screening equipment.* You must not discharge into the atmosphere from any new, reconstructed, or existing piece of equipment associated with crushing and screening exhaust gases containing particulate matter in excess of 13 mg/dscm.

(f) At all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records and inspection of the source.

§ 63.1624 What are the operational and work practice standards for new, reconstructed, and existing facilities?

(a) *Process fugitive emissions sources.* (1) You must prepare, and at all times operate according to, a process fugitive emissions ventilation plan that documents the equipment and operations designed to effectively capture process fugitive emissions. The plan will be deemed to achieve effective capture if it consists of the following elements:

(i) Documentation of engineered hoods and secondary fugitive capture systems designed according to the most recent, at the time of construction, ventilation design principles recommended by the American Conference of Governmental Industrial Hygienists (ACGIH). The process fugitive emissions capture systems must be designed to achieve sufficient air changes to evacuate the collection area frequently enough to ensure process fugitive emissions are effectively collected by the ventilation system and ducted to the control device(s). The required ventilation systems should also use properly positioned hooding to take advantage of the inherent air flows of the source and capture systems that minimize air flows while also intercepting natural air flows or creating air flows to contain the fugitive emissions. Include a schematic for each building indicating duct sizes and locations, hood sizes and locations, control device types, size and locations and exhaust locations. The design plan must identify the key operating parameters and measurement locations to ensure proper operation of the system and establish monitoring parameter values that reflect effective capture.

(ii) List of critical maintenance actions and the schedule to conduct them.

(2) You must submit a copy of the process fugitive emissions ventilation plan to the designated permitting authority on or before the applicable compliance date for the affected source as specified in § 63.1621 in electronic format and whenever an update is made to the plan. The requirement for you to operate the facility according to the written process fugitives ventilation plan and specifications must be incorporated in the operating permit for the facility that is issued by the designated permitting authority under part 70 or 71 of this chapter, as applicable.

(3) You must update the information required in paragraphs (a)(1) and (2) of this section every 5 years or whenever there is a significant change in variables that affect process fugitives ventilation design such as the addition of a new process.

(b) *Outdoor fugitive dust sources.* (1) You must prepare, and at all times operate according to, an outdoor fugitive dust control plan that describes in detail the measures that will be put in place to control outdoor fugitive dust emissions from the individual fugitive dust sources at the facility.

(2) You must submit a copy of the outdoor fugitive dust control plan to the designated permitting authority on or before the applicable compliance date for the affected source as specified in § 63.1621. The requirement for you to operate the facility according to a written outdoor fugitive dust control plan must be incorporated in the operating permit for the facility that is issued by the designated permitting authority under part 70 or 71 of this chapter, as applicable.

(3) You may use existing manuals that describe the measures in place to control outdoor fugitive dust sources required as part of a state implementation plan or other federally enforceable requirement for particulate matter to satisfy the requirements of paragraph (b)(1) of this section.

§ 63.1625 What are the performance test and compliance requirements for new, reconstructed, and existing facilities?

(a) *Performance testing.* (1) All performance tests must be conducted according to the requirements in § 63.7.

(2) Each performance test in paragraphs (c)(1) and (2) of this section must consist of three separate and complete runs using the applicable test methods.

(3) Each run must be conducted under conditions that are representative of normal process operations.

(4) Performance tests conducted on air pollution control devices serving electric arc furnaces must be conducted such that at least one tapping period, or at least 20 minutes of a tapping period, whichever is less, is included in at least two of the three runs. The sampling time for each run must be at least three times the average tapping period of the tested furnace, but no less than 60 minutes.

(5) You must conduct the performance tests specified in paragraph (c) of this section under such conditions as the Administrator specifies based on representative performance of the affected source for the period being tested. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(b) *Test methods.* The following test methods in appendices of part 60 or 63 of this chapter or as specified elsewhere must be used to determine compliance with the emission standards.

(1) Method 1 of appendix A–1 of 40 CFR part 60 to select the sampling port location and the number of traverse points.

(2) Method 2 of appendix A–1 of 40 CFR part 60 to determine the volumetric flow rate of the stack gas.

(3)(i) Method 3A or 3B of appendix A–2 of 40 CFR part 60 (with integrated bag sampling) to determine the outlet stack and inlet oxygen and CO_2 content.

(ii) You must measure CO_2 concentrations at both the inlet and outlet of the positive pressure fabric filter in conjunction with the pollutant sampling in order to determine isokinetic sampling rates.

(iii) As an alternative to EPA Reference Method 3B, ASME PTC–19–10–1981–Part 10 may be used (incorporated by reference, see § 63.14).

(4) Method 4 of appendix A–3 of 40 CFR part 60 to determine the moisture content of the stack gas.

(5)(i) Method 5 of appendix A–3 of 40 CFR part 60 to determine the particulate matter concentration of the stack gas for negative pressure baghouses and positive pressure baghouses with stacks.

(ii) Method 5D of appendix A–3 of 40 CFR part 60 to determine particulate matter concentration and volumetric flow rate of the stack gas for positive pressure baghouses without stacks.

(iii) The sample volume for each run must be a minimum of 4.0 cubic meters (141.2 cubic feet). For Method 5 testing only, you may choose to collect less than 4.0 cubic meters per run provided that the filterable mass collected (*i.e.*, net filter mass plus mass of nozzle, probe and filter holder rinses) is equal to or greater than 10 mg. If the total mass collected for two of three of the runs is less than 10 mg, you must conduct at least one additional test run that produces at least 10 mg of filterable mass collected (*i.e.*, at a greater sample volume). Report the results of all test runs.

(6) Method 30B of appendix A–8 of 40 CFR part 60 to measure mercury. Apply the minimum sample volume determination procedures as per the method.

(7)(i) Method 26A of appendix A–8 of 40 CFR part 60 to determine outlet stack or inlet hydrochloric acid concentration.

(ii) Collect a minimum volume of 2 cubic meters.

(8)(i) Method 316 of appendix A of this part to determine outlet stack or inlet formaldehyde.

(ii) Collect a minimum volume of 1.0 cubic meter.

(9) ASTM D7520–13 to determine opacity (incorporated by reference, see § 63.14) with the following conditions:

(i) During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520–13, you or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees and mixed backgrounds (clouds and/or a sparse tree stand).

(ii) You must have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520–13.

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

(iv) You or the DCOT vendor must have a minimum of four (4) independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 20 percent opacity for any one reading and the average error must not exceed 7.5 percent opacity.

(v) Use of this method does not provide or imply a certification or validation of any vendor's hardware or software. The onus to maintain and verify the certification and/or training of the DCOT camera, software and operator in accordance with ASTM D7520–13 and these requirements is on the facility, DCOT operator and DCOT vendor.

(10) California Air Resources Board (CARB) Method 429 (incorporated by reference, see § 63.14).

(11) The owner or operator may use alternative measurement methods approved by the Administrator following the procedures described in § 63.7(f).

(c) *Compliance demonstration with the emission standards*—(1) *Initial performance test.* You must conduct an initial performance test for air pollution control devices or vent stacks subject to § 63.1623(a), (b)(1), and (c) through (e) to demonstrate compliance with the applicable emission standards.

(2) *Periodic performance test.* (i) You must conduct annual particulate matter tests for wet scrubber air pollution control devices subject to § 63.1623(a)(1) to demonstrate compliance with the applicable emission standards.

(ii) You must conduct particulate matter tests every 5 years for fabric filter air pollution control devices subject to § 63.1623(a)(1) to demonstrate compliance with the applicable emission standards.

(iii) You must conduct annual mercury performance tests for wet scrubber and fabric filter air pollution control devices or vent stacks subject to § 63.1623(a)(2) to demonstrate compliance with the applicable emission standards.

(iv) You must conduct PAH performance tests for wet scrubber and fabric filter air pollution control devices or vent stacks subject to § 63.1623(a)(3) to demonstrate compliance with the applicable emission standards.

(A) For furnaces producing silicomanganese, you must conduct a PAH performance test every 5 years for each furnace that produces silicomanganese subject to § 63.1623(a)(3).

(B) For furnaces producing ferromanganese, you must conduct a PAH performance test every 3 months or 2,190 cumulative hours of ferromanganese production for each furnace subject to § 63.1623(a)(3).

(C) If a furnace producing ferromanganese demonstrates compliance with four consecutive PAH tests, the owner/operator may petition the permitting authority to request reduced frequency of testing to demonstrate compliance with the PAH emission standards. However, this PAH compliance testing cannot be reduced to less than once per year.

(v) You must conduct ongoing performance tests every 5 years for air pollution control devices or vent stacks subject to § 63.1623(a)(4), (a)(5), (b)(1), and (c) through (e) to demonstrate compliance with the applicable emission standards.

(3) Compliance is demonstrated for all sources performing emissions tests if the average concentration for the three runs comprising the performance test does not exceed the standard.

(4) *Operating limits.* You must establish parameter operating limits according to paragraphs (c)(4)(i) through (iv) of this section. Unless otherwise specified, compliance with each established operating limit shall be demonstrated for each 24-hour operating day.

(i) For a wet particulate matter scrubber, you must establish the minimum liquid flow rate and pressure drop as your operating limits during the three-run performance test. If you use a wet particulate matter scrubber and you conduct separate performance tests for particulate matter, you must establish one set of minimum liquid flow rate and pressure drop operating limits. If you conduct multiple performance tests, you must set the minimum liquid flow rate and pressure drop operating limits at the highest minimum hourly average

values established during the performance tests.

(ii) For a wet acid gas scrubber, you must establish the minimum liquid flow rate and pH, as your operating limits during the three-run performance test. If you use a wet acid gas scrubber and you conduct separate performance tests for hydrochloric acid, you must establish one set of minimum liquid flow rate and pH operating limits. If you conduct multiple performance tests, you must set the minimum liquid flow rate and pH operating limits at the highest minimum hourly average values established during the performance tests.

(iii) For emission sources with fabric filters that choose to demonstrate continuous compliance through bag leak detection systems you must install a bag leak detection system according to the requirements in § 63.1626(d) and you must set your operating limit such that the sum duration of bag leak detection system alarms does not exceed 5 percent of the process operating time during a 6-month period.

(iv) If you choose to demonstrate continuous compliance through a particulate matter CEMS, you must determine an operating limit (particulate matter concentration in mg/dscm) during performance testing for initial particulate matter compliance. The operating limit will be the average of the PM filterable results of the three Method 5 or Method 5D of appendix A–3 of 40 CFR part 60 performance test runs. To determine continuous compliance, the hourly average PM concentrations will be averaged on a rolling 30 operating day basis. Each 30 operating day average will have to meet the PM operating limit.

(d) *Compliance demonstration with shop building opacity standards.* (1)(i) If you are subject to § 63.1623(b), you must conduct opacity observations of the shop building to demonstrate compliance with the applicable opacity standards according to § 63.6(h)(5), which addresses conducting opacity or visible emission observations.

(ii) You must conduct the opacity observations according to ASTM D7520–13 (incorporated by reference, see § 63.14), for a period that includes at least one complete furnace process cycle for each furnace.

(iii) For a shop building that contains more than one furnace, you must conduct the opacity observations according to ASTM D7520–13, for a period that includes one tapping period from each furnace located in the shop building.

(iv) You must conduct the opacity observations according to ASTM D7520–13, for a one hour period that includes at least one pouring for each MOR located in the shop building.

(v) You must conduct the opacity observations at least once per week for each shop building containing one or more furnaces or MOR.

(vi) You may reduce the frequency of observations to once per month for each shop building that demonstrates compliance with the weekly 8-percent opacity limit for 26 consecutive complete observations that span a period of at least 26 weeks. Any monthly observation in excess of 8-percent opacity will return that shop building opacity observation to a weekly compliance schedule. You may reduce the frequency of observations again to once per month for each shop building that demonstrates compliance with the weekly 8-percent opacity limit after another 26 consecutive complete observations that span a period of at least 26 weeks.

(2) You must determine shop building opacity operating parameters based on either monitoring data collected during the compliance demonstration or established in an engineering assessment.

(i) If you choose to establish parameters based on the initial compliance demonstration, you must simultaneously monitor parameter values for one of the following: The capture system fan motor amperes and all capture system damper positions, the total volumetric flow rate to the air pollution control device and all capture system damper positions, or volumetric flow rate through each separately ducted hood that comprises the capture system. Subsequently you must monitor these parameters according to § 63.1626(g) and ensure they remain within 10 percent of the value recorded during the compliant opacity readings.

(ii) If you choose to establish parameters based on an engineering assessment, then a design analysis shall include, for example, specifications, drawings, schematics and ventilation system diagrams prepared by the owner or operator or capture or control system manufacturer or vendor that describes the shop building opacity system ventilation design based on acceptable engineering texts. The design analysis shall address vent stream characteristics and ventilation system design operating parameters such as fan amps, damper position, flow rate and/or other specified parameters.

(iii) You may petition the Administrator to reestablish these parameter ranges whenever you can demonstrate to the Administrator's satisfaction that the electric arc furnace or MOR operating conditions upon which the parameter ranges were previously established are no longer applicable. The values of these parameter ranges determined during the most recent demonstration of compliance must be maintained at the appropriate level for each applicable period.

(3) You will demonstrate continuing compliance with the opacity standards by following the monitoring requirements specified in § 63.1626(g) and the reporting and recordkeeping requirements specified in § 63.1628(b)(5).

(e) *Compliance demonstration with the operational and work practice standards*—(1) Process fugitive emissions sources. You will demonstrate compliance by developing and maintaining a process fugitives ventilation plan, by reporting any deviations from the plan and by taking necessary corrective actions to correct deviations or deficiencies.

(2) *Outdoor fugitive dust sources.* You will demonstrate compliance by developing and maintaining an outdoor fugitive dust control plan, by reporting any deviations from the plan and by taking necessary corrective actions to correct deviations or deficiencies.

(3) *Baghouses equipped with bag leak detection systems.* You will demonstrate compliance with the bag leak detection system requirements by developing an analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in § 60.57c(h) of this chapter.

§ 63.1626 What monitoring requirements must I meet?

(a) *Baghouse monitoring.* You must prepare, and at all times operate according to, a standard operating procedures manual that describes in detail procedures for inspection, maintenance and bag leak detection and corrective action plans for all baghouses (fabric filters or cartridge filters) that are used to control process vents, process fugitive, or outdoor fugitive dust emissions from any source subject to the emissions standards in § 63.1623.

(b) You must submit the standard operating procedures manual for baghouses required by paragraph (a) of this section to the Administrator or delegated authority for review and approval.

(c) Unless the baghouse is equipped with a bag leak detection system or CEMS, the procedures that you specify in the standard operating procedures manual for inspections and routine maintenance must, at a minimum,

include the requirements of paragraphs (c)(1) and (2) of this section.

(1) You must observe the baghouse outlet on a daily basis for the presence of any visible emissions.

(2) In addition to the daily visible emissions observation, you must conduct the following activities:

(i) Weekly confirmation that dust is being removed from hoppers through visual inspection, or equivalent means of ensuring the proper functioning of removal mechanisms.

(ii) Daily check of compressed air supply for pulse-jet baghouses.

(iii) An appropriate methodology for monitoring cleaning cycles to ensure proper operation.

(iv) Monthly check of bag cleaning mechanisms for proper functioning through visual inspection or equivalent means.

(v) Quarterly visual check of bag tension on reverse air and shaker-type baghouses to ensure that the bags are not kinked (kneed or bent) or lying on their sides. Such checks are not required for shaker-type baghouses using self-tensioning (spring loaded) devices.

(vi) Quarterly confirmation of the physical integrity of the baghouse structure through visual inspection of the baghouse interior for air leaks.

(vii) Semiannual inspection of fans for wear, material buildup and corrosion through visual inspection, vibration detectors, or equivalent means.

(d) *Bag leak detection system.* (1) For each baghouse used to control emissions from an electric arc furnace, you must install, operate and maintain a bag leak detection system according to paragraphs (d)(2) through (4) of this section, unless a system meeting the requirements of paragraph (o) of this section, for a CEMS and continuous emissions rate monitoring system, is installed for monitoring the concentration of particulate matter. You may choose to install, operate and maintain a bag leak detection system for any other baghouse in operation at the facility according to paragraphs (d)(2) through (4) of this section.

(2) The procedures you specified in the standard operating procedures manual for baghouse maintenance must include, at a minimum, a preventative maintenance schedule that is consistent with the baghouse manufacturer's instructions for routine and long-term maintenance.

(3) Each bag leak detection system must meet the specifications and requirements in paragraphs (d)(3)(i) through (viii) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1.0 milligram per dry standard cubic meter (0.00044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must provide output of relative PM loadings.

(iii) The bag leak detection system must be equipped with an alarm system that will alarm when an increase in relative particulate loadings is detected over a preset level.

(iv) You must install and operate the bag leak detection system in a manner consistent with the guidance provided in ''Office of Air Quality Planning and Standards (OAQPS) Fabric Filter Bag Leak Detection Guidance'' EPA–454/R–98–015, September 1997 (incorporated by reference, see § 63.14) and the manufacturer's written specifications and recommendations for installation, operation and adjustment of the system.

(v) The initial adjustment of the system must, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device and establishing the alarm set points and the alarm delay time.

(vi) Following initial adjustment, you must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in the approved standard operating procedures manual required under paragraph (a) of this section. You cannot increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365-day period unless such adjustment follows a complete baghouse inspection that demonstrates that the baghouse is in good operating condition.

(vii) You must install the bag leak detector downstream of the baghouse.

(viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(4) You must include in the standard operating procedures manual required by paragraph (a) of this section a corrective action plan that specifies the procedures to be followed in the case of a bag leak detection system alarm. The corrective action plan must include, at a minimum, the procedures that you will use to determine and record the time and cause of the alarm as well as the corrective actions taken to minimize emissions as specified in paragraphs (d)(4)(i) and (ii) of this section.

(i) The procedures used to determine the cause of the alarm must be initiated within 30 minutes of the alarm.

(ii) The cause of the alarm must be alleviated by taking the necessary corrective action(s) that may include, but not be limited to, those listed in paragraphs (d)(4)(ii)(A) through (F) of this section.

(A) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions.

(B) Sealing off defective bags or filter media.

(C) Replacing defective bags or filter media, or otherwise repairing the control device.

(D) Sealing off a defective baghouse compartment.

(E) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.

(F) Shutting down the process producing the particulate emissions.

(e) If you use a wet particulate matter scrubber, you must collect the pressure drop and liquid flow rate monitoring system data according to § 63.1628, reduce the data to 24-hour block averages and maintain the 24-hour average pressure drop and liquid flow-rate at or above the operating limits established during the performance test according to § 63.1625(c)(4)(i).

(f) If you use curtains or partitions to prevent process fugitive emissions from escaping the area around the process fugitive emission source or other parts of the building, you must perform quarterly inspections of the physical condition of these curtains or partitions to determine if there are any tears or openings.

(g) *Shop building opacity.* In order to demonstrate continuous compliance with the opacity standards in § 63.1623, you must comply with the requirements § 63.1625(d)(1) and one of the monitoring options in paragraphs (g)(1) or (2) of this section. The selected option must be consistent with that selected during the initial performance test described in § 63.1625(d)(2). Alternatively, you may use the provisions of § 63.8(f) to request approval to use an alternative monitoring method.

(1) If you choose to establish operating parameters during the compliance test as specified in § 63.1625(d)(2)(i), you must meet one of the following requirements.

(i) Check and record the control system fan motor amperes and capture system damper positions once per shift.

(ii) Install, calibrate and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood.

(iii) Install, calibrate and maintain a monitoring device that continuously records the volumetric flow rate at the inlet of the air pollution control device and check and record the capture system damper positions once per shift.

(2) If you choose to establish operating parameters during the compliance test as specified in § 63.1625(d)(2)(ii), you must monitor the selected parameter(s) on a frequency specified in the assessment and according to a method specified in the engineering assessment

(3) All flow rate monitoring devices must meet the following requirements:

(i) Be installed in an appropriate location in the exhaust duct such that reproducible flow rate monitoring will result.

(ii) Have an accuracy ±10 percent over its normal operating range and be calibrated according to the manufacturer's instructions.

(4) The Administrator may require you to demonstrate the accuracy of the monitoring device(s) relative to Methods 1 and 2 of appendix A–1 of part 60 of this chapter.

(5) Failure to maintain the appropriate capture system parameters (e.g., fan motor amperes, flow rate and/or damper positions) establishes the need to initiate corrective action as soon as practicable after the monitoring excursion in order to minimize excess emissions.

(h) *Furnace capture system.* You must perform quarterly (once every three months) inspections of the furnace fugitive capture system equipment to ensure that the hood locations have not been changed or obstructed because of contact with cranes or ladles, quarterly inspections of the physical condition of hoods and ductwork to the control device to determine if there are any openings or leaks in the ductwork, quarterly inspections of the hoods and ductwork to determine if there are any flow constrictions in ductwork due to dents or accumulated dust and quarterly examinations of the operational status of flow rate controllers (pressure sensors, dampers, damper switches, etc.) to ensure they are operating correctly. Any deficiencies must be recorded and proper maintenance and repairs performed.

(i) *Requirements for sources using CMS.* If you demonstrate compliance with any applicable emissions limit through use of a continuous monitoring system (CMS), where a CMS includes a continuous parameter monitoring system (CPMS) as well as a continuous emissions monitoring system (CEMS), you must develop a site-specific monitoring plan and submit this site-specific monitoring plan, if requested, at least 60 days before your initial performance evaluation (where applicable) of your CMS. Your site-specific monitoring plan must address the monitoring system design, data collection and the quality assurance and quality control elements outlined in this paragraph and in § 63.8(d). You must install, operate and maintain each CMS according to the procedures in your approved site-specific monitoring plan. Using the process described in § 63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (i)(1) through (6) of this section in your site-specific monitoring plan.

(1) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer and data acquisition and calculations;

(2) Sampling interface location such that the monitoring system will provide representative measurements;

(3) Equipment performance checks, system accuracy audits, or other audit procedures;

(4) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1) and (3);

(5) Conditions that define a continuous monitoring system that is out of control consistent with § 63.8(c)(7)(i) and for responding to out of control periods consistent with § 63.8(c)(7)(ii) and (c)(8) or Table 1 to this subpart, as applicable; and

(6) Ongoing recordkeeping and reporting procedures in accordance with provisions in § 63.10(c), (e)(1) and (e)(2)(i), and Table 1 to this subpart, as applicable.

(j) If you have an operating limit that requires the use of a CPMS, you must install, operate and maintain each continuous parameter monitoring system according to the procedures in paragraphs (j)(1) through (7) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.

(2) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits and required zero and span adjustments), you must operate the CMS at all times the affected source is operating. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

(3) You may not use data recorded during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. You must use all the data collected during all other required data collection periods in assessing the operation of the control device and associated control system.

(4) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions and required quality monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements.

(5) You must conduct other CPMS equipment performance checks, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least once every 12 months.

(6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

(7) You must record the results of each inspection, calibration and validation check.

(k) *CPMS for measuring gaseous flow.* (1) Use a flow sensor with a measurement sensitivity of 5 percent of the flow rate or 10 cubic feet per minute, whichever is greater;

(2) Check all mechanical connections for leakage at least every month; and

(3) Perform a visual inspection at least every 3 months of all components of the flow CPMS for physical and operational integrity and all electrical connections for oxidation and galvanic corrosion if your flow CPMS is not equipped with a redundant flow sensor.

(l) *CPMS for measuring liquid flow.* (1) Use a flow sensor with a measurement sensitivity of 2 percent of the liquid flow rate; and

(2) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(m) *CPMS for measuring pressure.* (1) Minimize or eliminate pulsating pressure, vibration and internal and external corrosion; and

(2) Use a gauge with a minimum tolerance of 1.27 centimeters of water or

a transducer with a minimum tolerance of 1 percent of the pressure range.

(3) Perform checks at least once each process operating day to ensure pressure measurements are not obstructed (*e.g.*, check for pressure tap pluggage daily).

(n) *CPMS for measuring pH.* (1) Ensure the sample is properly mixed and representative of the fluid to be measured.

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

(o) *Particulate Matter CEMS.* If you are using a CEMS to measure particulate matter emissions to meet requirements of this subpart, you must install, certify, operate and maintain the particulate matter CEMS as specified in paragraphs (o)(1) through (4) of this section.

(1) You must conduct a performance evaluation of the PM CEMS according to the applicable requirements of § 60.13 of this chapter and Performance Specification 11 at 40 CFR part 60, appendix B.

(2) During each PM correlation testing run of the CEMS required by Performance Specification 11 at 40 CFR part 60, appendix B, PM and oxygen (or carbon dioxide) collect data concurrently (or within a 30- to 60-minute period) by both the CEMS and by conducting performance tests using Method 5 or 5D at 40 CFR part 60, appendix A–3 or Method 17 at 40 CFR part 60, appendix A–6.

(3) Perform quarterly accuracy determinations and daily calibration drift tests in accordance with Procedure 2 at 40 CFR part 60, appendix F. Relative Response Audits must be performed annually and Response Correlation Audits must be performed every 3 years.

(4) Within 60 days after the date of completing each CEMS relative accuracy test audit or performance test conducted to demonstrate compliance with this subpart, you must submit the relative accuracy test audit data and the results of the performance test as specified in § 63.1628(e).

§ 63.1627 What notification requirements must I meet?

(a) You must comply with all of the notification requirements of § 63.9. Electronic notifications are encouraged when possible.

(b)(1) You must submit the process fugitive ventilation plan required under § 63.1624(a), the outdoor fugitive dust control plan required under § 63.1624(b), the site-specific monitoring plan for CMS required under § 63.1626(i) and the standard operating procedures manual for baghouses required under § 63.1626(a) to the Administrator or delegated authority. You must submit this notification no later than June 30, 2016. For sources that commenced construction or reconstruction after June 30, 2015, you must submit this notification no later than 180 days before startup of the constructed or reconstructed ferromanganese or silicomanganese production facility. For an affected source that has received a construction permit from the Administrator or delegated authority on or before June 30, 2015, you must submit this notification no later than June 30, 2016.

(2) The plans and procedures documents submitted as required under paragraph (b)(1) of this section must be submitted to the Administrator in electronic format and whenever an update is made to the procedure.

§ 63.1628 What recordkeeping and reporting requirements must I meet?

(a) You must comply with all of the recordkeeping and reporting requirements specified in § 63.10 of the General Provisions that are referenced in Table 1 to this subpart.

(1) Records must be maintained in a form suitable and readily available for expeditious review, according to § 63.10(b)(1). However, electronic recordkeeping and reporting is encouraged and required for some records and reports.

(2) Records must be kept on site for at least 2 years after the date of occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1).

(b) You must maintain, for a period of 5 years, records of the information listed in paragraphs (b)(1) through (11) of this section.

(1) Electronic records of the bag leak detection system output.

(2) An identification of the date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, the cause of the alarm, an explanation of the corrective actions taken and the date and time the cause of the alarm was corrected.

(3) All records of inspections and maintenance activities required under § 63.1626(c) as part of the practices described in the standard operating procedures manual for baghouses required under § 63.1626(a).

(4) Electronic records of the pressure drop and water flow rate values for wet scrubbers used to control particulate matter emissions as required in § 63.1626(e), identification of periods when the 1-hour average pressure drop and water flow rate values are below the established minimum operating limits and an explanation of the corrective actions taken.

(5) Electronic records of the shop building capture system monitoring required under § 63.1626(g)(1) and (2), as applicable, or identification of periods when the capture system parameters were not maintained and an explanation of the corrective actions taken.

(6) Records of the results of quarterly inspections of the furnace capture system required under § 63.1626(h).

(7) Electronic records of the continuous flow monitors or pressure monitors required under § 63.1626(i) and (j) and an identification of periods when the flow rate or pressure was not maintained as required in § 63.1626(e).

(8) Electronic records of the output of any CEMS installed to monitor particulate matter emissions meeting the requirements of § 63.1626(i).

(9) Records of the occurrence and duration of each startup and/or shutdown.

(10) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control equipment and monitoring equipment.

(11) Records that explain the periods when the procedures outlined in the process fugitives ventilation plan required under § 63.1624(a), the fugitives dust control plan required under § 63.1624(b), the site-specific monitoring plan for CMS required under § 63.1626(i) and the standard operating procedures manual for baghouses required under § 63.1626(a).

(c) You must comply with all of the reporting requirements specified in § 63.10 of the General Provisions that are referenced in Table 1 to this subpart.

(1) You must submit reports no less frequently than specified under § 63.10(e)(3) of the General Provisions.

(2) Once a source reports a violation of the standard or excess emissions, you must follow the reporting format required under § 63.10(e)(3) until a request to reduce reporting frequency is approved by the Administrator.

(d) In addition to the information required under the applicable sections of § 63.10, you must include in the reports required under paragraph (c) of this section the information specified in paragraphs (d)(1) through (7) of this section.

(1) Reports that identify and explain the periods when the procedures outlined in the process fugitives ventilation plan required under § 63.1624(a), the fugitives dust control plan required under § 63.1624(b), the site-specific monitoring plan for CMS required under § 63.1626(i) and the

standard operating procedures manual for baghouses required under § 63.1626(a) were not followed.

(2) Reports that identify the periods when the average hourly pressure drop or flow rate of wet scrubbers used to control particulate emissions dropped below the levels established in § 63.1626(e) and an explanation of the corrective actions taken.

(3) *Bag leak detection system.* Reports including the following information:

(i) Records of all alarms.

(ii) Description of the actions taken following each bag leak detection system alarm.

(4) Reports of the shop building capture system monitoring required under § 63.1626(g)(1) and (2), as applicable, identification of periods when the capture system parameters were not maintained and an explanation of the corrective actions taken.

(5) Reports of the results of quarterly inspections of the furnace capture system required under § 63.1626(h).

(6) Reports of the CPMS required under § 63.1626, an identification of periods when the monitored parameters were not maintained as required in § 63.1626 and corrective actions taken.

(7) If a malfunction occurred during the reporting period, the report must include the number, duration and a brief description for each type of malfunction that occurred during the reporting period and caused or may have caused any applicable emissions limitation to be exceeded. The report must also include a description of actions taken by the owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 63.1623(f), including actions taken to correct a malfunction.

(e) Within 60 days after the date of completing each CEMS relative accuracy test audit or performance test conducted to demonstrate compliance with this subpart, you must submit the relative accuracy test audit data and the results of the performance test in the method specified by paragraphs (e)(1) and (2) of this section. The results of the performance test must contain the information listed in paragraph (e)(2) of this section.

(1)(i) Within 60 days after the date of completing each performance test (as defined in § 63.2) required by this subpart, you must submit the results of the performance tests, including any associated fuel analyses, following the procedure specified in either paragraph (e)(1)(i)(A) or (B) of this section.

(A) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (*http://www.epa.gov/ttn/chief/ert/index.html*), you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (*http://cdx.epa.gov/epa_home.asp*). Performance test data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit performance test data in an electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site once the XML schema is available. If you claim that some of the performance test information being submitted is confidential business information (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 disk, 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 paragraph (e)(1)(i)(A).

(B) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance test to the Administrator at the appropriate address listed in § 63.13.

(ii) Within 60 days after the date of completing each CEMS performance evaluation (as defined in § 63.2), you must submit the results of the performance evaluation following the procedure specified in either paragraph (b)(1) or (2) of this section.

(A) 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, you must submit the results of the performance evaluation to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit performance evaluation data in an electronic file format consistent with the XML schema listed on the EPA's ERT Web site, once the XML schema is available. 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 alternative electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disk, flash drive or other commonly used electronic storage media to the EPA. The electronic storage 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 file or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (e)(1)(ii)(A).

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

(2) The results of a performance test shall include the purpose of the test; a brief process description; a complete unit description, including a description of feed streams and control devices; sampling site description; pollutants measured; description of sampling and analysis procedures and any modifications to standard procedures; quality assurance procedures; record of operating conditions, including operating parameters for which limits are being set, during the test; record of preparation of standards; record of calibrations; raw data sheets for field sampling; raw data sheets for field and laboratory analyses; chain-of-custody documentation; explanation of laboratory data qualifiers; example calculations of all applicable stack gas parameters, emission rates, percent reduction rates and analytical results, as applicable; and any other information required by the test method, a relevant standard, or the Administrator.

§ 63.1629 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable state, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to a state, local, or tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if this

subpart is delegated to a state, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a state, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the state, local, or tribal agency.

(c) The authorities that cannot be delegated to state, local, or tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to requirements in §§ 63.1620 and 63.1621 and 63.1623 and 63.1624.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90 and as required in this subpart.

(3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90 and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90 and as required in this subpart.

■ 4. Section 63.1650 is amended by:
■ a. Revising paragraph (d);
■ b. Removing and reserving paragraph (e)(1); and
■ c. Revising paragraph (e)(2).

The revisions read as follows:

§ 63.1650 Applicability and compliance dates.

* * * * *

(d) Table 1 to this subpart specifies the provisions of subpart A of this part that apply to owners and operators of ferroalloy production facilities subject to this subpart.

(e) * * *

(2) Each owner or operator of a new or reconstructed affected source that commences construction or reconstruction after August 4, 1998 and before November 23, 2011, must comply with the requirements of this subpart by May 20, 1999 or upon startup of operations, whichever is later.

■ 5. Section 63.1652 is amended by adding paragraph (f) to read as follows:

§ 63.1652 Emission standards.

* * * * *

(f) At all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records and inspection of the source.

■ 6. Section 63.1656 is amended by:
■ a. Adding paragraph (a)(6);
■ b. Revising paragraphs (b)(7) and (e)(1); and
■ c. Removing and reserving paragraph (e)(2)(ii).

The addition and revisions read as follows:

§ 63.1656 Performance testing, test methods, and compliance demonstrations.

(a) * * *

(6) You must conduct the performance tests specified in paragraph (c) of this section under such conditions as the Administrator specifies based on representative performance of the affected source for the period being tested. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(b) * * *

(7) Method 9 of appendix A–4 of 40 CFR part 60 to determine opacity. ASTM D7520–13, ''Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere'' may be used (incorporated by reference, see § 63.14) with the following conditions:

(i) During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520–13, the owner or operator or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees and mixed backgrounds (clouds and/or a sparse tree stand).

(ii) The owner or operator must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520–13.

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

(iv) The owner or operator or the DCOT vendor must have a minimum of four (4) independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity of any one reading and the average error must not exceed 7.5 percent opacity.

(v) Use of this approved alternative does not provide or imply a certification or validation of any vendor's hardware or software. The onus to maintain and verify the certification and/or training of the DCOT camera, software and operator in accordance with ASTM D7520–13 and these requirements is on the facility, DCOT operator and DCOT vendor.

* * * * *

(e) * * *

(1) *Fugitive dust sources.* Failure to have a fugitive dust control plan or failure to report deviations from the plan and take necessary corrective action would be a violation of the general duty to ensure that fugitive dust sources are operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions per § 63.1652(f).

* * * * *

■ 7. Section 63.1657 is amended by revising paragraphs (a)(6), (b)(3), and (c)(7) to read as follows:

§ 63.1657 Monitoring requirements.

(a) * * *

(6) Failure to monitor or failure to take corrective action under the requirements of paragraph (a) of this section would be a violation of the general duty to operate in a manner consistent with good air pollution control practices that minimizes emissions per § 63.1652(f).

(b) * * *

(3) Failure to monitor or failure to take corrective action under the requirements of paragraph (b) of this section would be a violation of the general duty to operate in a manner consistent with good air pollution control practices that minimizes emissions per § 63.1652(f).

(c) * * *

(7) Failure to monitor or failure to take corrective action under the requirements of paragraph (c) of this section would be a violation of the general duty to operate in a manner consistent with good air pollution control practices that minimizes emissions per § 63.1652(f).

■ 8. Section 63.1659 is amended by revising paragraph (a)(4) to read as follows:

§ 63.1659 Reporting requirements.

(a) * * *

(4) *Reporting malfunctions.* If a malfunction occurred during the reporting period, the report must include the number, duration and a brief description for each type of

malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 63.1652(f), including actions taken to correct a malfunction.

* * * * *

■ 9. Section 63.1660 is amended by:

■ a. Revising paragraphs (a)(2)(i) and (ii); and

■ b. Removing and reserving paragraphs (a)(2)(iv) and (v).

The revisions read as follows:

§ 63.1660 Recordkeeping requirements.

(a) * * *

(2) * * *

(i) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control equipment and monitoring equipment;

(ii) Records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.1652(f), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation;

* * * * *

■ 10. Add Table 1 to the end of subpart XXX to read as follows:

TABLE 1—TO SUBPART XXX OF PART 63—GENERAL PROVISIONS APPLICABILITY TO SUBPART XXX

Reference	Applies to subpart XXX	Comment
§ 63.1	Yes	
§ 63.2	Yes	
§ 63.3	Yes	
§ 63.4	Yes	
§ 63.5	Yes	
§ 63.6(a), (b), (c)	Yes	
§ 63.6(d)	No	Section reserved.
§ 63.6(e)(1)(i)	No	See §§ 63.1623(g) and 63.1652(f) for general duty requirement.
§ 63.6(e)(1)(ii)	No	
§ 63.6(e)(1)(iii)	Yes	
§ 63.6(e)(2)	No	Section reserved.
§ 63.6(e)(3)	No	
§ 63.6(f)(1)	No	
§ 63.6(f)(2)–(3)	Yes	
§ 63.6(g)	Yes	
§ 63.6(h)(1)	No	
§ 63.6(h)(2)–(9)	Yes	
§ 63.6(i)	Yes	
§ 63.6(j)	Yes	
§ 63.7(a)–(d)	Yes	
§ 63.7(e)(1)	No	See §§ 63.1625(a)(5) and 63.1656(a)(6).
§ 63.7(e)(2)–(4)	Yes	
§ 63.7(f), (g), (h)	Yes	
§ 63.8(a)–(b)	Yes	
§ 63.8(c)(1)(i)	No	See §§ 63.1623(g) and 63.1652(f) for general duty requirement.
§ 63.8(c)(1)(ii)	Yes	
§ 63.8(c)(1)(iii)	No	
§ 63.8(c)(2)–(d)(2)	Yes	
§ 63.8(d)(3)	Yes, except for last sentence.	SSM plans are not required.
§ 63.8(e)–(g)	Yes	
§ 63.9(a),(b),(c),(e),(g),(h)(1) through (3), (h)(5) and (6), (i) and (j).	Yes	
§ 63.9(f)	Yes	
§ 63.9(h)(4)	No	Section reserved.
§ 63.10(a)	Yes	
§ 63.10(b)(1)	Yes	
§ 63.10(b)(2)(i)	No	
§ 63.10(b)(2)(ii)	No	See §§ 63.1628 and 63.1660 for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunction.
§ 63.10(b)(2)(iii)	Yes	
§ 63.10(b)(2)(iv)–(v)	No	
§ 63.10(b)(2)(vi)–(xiv)	Yes	
§ 63.10)(b)(3)	Yes	
§ 63.10(c)(1)–(9)	Yes	
§ 63.10(c)(10)–(11)	No	See §§ 63.1628 and 63.1660 for malfunction recordkeeping requirements.
§ 63.10(c)(12)–(14)	Yes	
§ 63.10(c)(15)	No	
§ 63.10(d)(1)–(4)	Yes	
§ 63.10(d)(5)	No	See §§ 63.1628(d)(8) and 63.1659(a)(4) for malfunction reporting requirements.
§ 63.10(e)–(f)	Yes	

TABLE 1—TO SUBPART XXX OF PART 63—GENERAL PROVISIONS APPLICABILITY TO SUBPART XXX—Continued

Reference	Applies to subpart XXX	Comment
§ 63.11	No	Flares will not be used to comply with the emission limits.
§§ 63.12–63.15	Yes	

[FR Doc. 2015–15038 Filed 6–29–15; 8:45 am]
BILLING CODE 6560–50–P