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40 CFR Part 63
National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA–HQ–OAR–2010–0544; FRL–9932–44–OAR]

RIN 2060–AQ40

National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action finalizes the residual risk and technology review (RTR), and the rule review, we conducted for the Secondary Aluminum Production source category regulated under national emission standards for hazardous air pollutants (NESHAP). In this action, we are finalizing several amendments to the NESHAP based on the rule review. These final amendments include a requirement to report performance testing through the Electronic Reporting Tool (ERT); provisions allowing owners and operators to change furnace classifications; requirements to account for unmeasured emissions during compliance testing for group 1 furnaces that do not have add-on control devices; alternative compliance options for the operating and monitoring requirements for sweat furnaces; compliance provisions for hydrogen fluoride; provisions addressing emissions during periods of startup, shutdown, and malfunction (SSM); and other corrections and clarifications to the applicability, definitions, operating, monitoring and performance testing requirements. These amendments will improve the monitoring, compliance and implementation of the rule.

DATES: *Effective date:* This final action is effective on September 18, 2015.

Compliance dates: The compliance date for the final amendments listed in 40 CFR 63.1501(b) for existing secondary aluminum production affected sources is March 16, 2016. The compliance date for the final amendments listed in 40 CFR 63.1501(c) for existing affected sources is September 18, 2017. The owner or operator of a new affected source that commences construction or reconstruction after February 14, 2012, must comply with all of the requirements listed in 40 CFR 63.1501(b) and (c) by September 18, 2015 or upon startup, whichever is later.

The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of September 18, 2015.

ADDRESSES: The Environmental Protection Agency (EPA) has established a docket for this action under Docket ID No. EPA–HQ–OAR–2010–0544. 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., 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 Ms. Rochelle Boyd, 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) 541–1390; fax number: (919) 541–3207; and email address: *boyd.rochelle@epa.gov.* For specific information regarding the risk modeling methodology, contact James Hirtz, 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) 541–0881; fax number: (919) 541–0840; and email address: *hirtz.james@epa.gov.* For information about the applicability of the NESHAP to a particular entity, contact Scott Throwe, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency, EPA WJC West Building, 1200 Pennsylvania Ave. NW., Washington, DC 20460; telephone number: (202) 564–7013; and email address: *throwe.scott@epa.gov.*

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

ACGIH American Conference of Government Industrial Hygienists
AEGL acute exposure guideline levels
AERMOD air dispersion model used by the HEM–3 model
APCD air pollution control device
AMOS ample margin of safety
ATSDR Agency for Toxic Substances and Disease Registry
BACT best available control technology
CAA Clean Air Act
CalEPA California Environmental Protection Agency
CBI confidential business information
CDX Central Data Exchange
CFR Code of Federal Regulations
D/F dioxins and furans
Dscf dry standard cubic feet
Dscm dry standard cubic meters
EJ environmental justice
EPA United States Environmental Protection Agency
ERPG Emergency Response Planning Guidelines
ERT Electronic Reporting Tool
g grams
gr grains
HAP hazardous air pollutants
HCl hydrogen chloride
HEM–3 Human Exposure Model, Version 3
HF hydrogen fluoride
HI hazard index
HQ hazard quotient
ICR information collection request
IRIS Integrated Risk Information System
km kilometer
lb pounds
lbs/yr pounds per year
LOAEL lowest-observed-adverse-effect level
MACT maximum achievable control technology
MIR maximum individual risk
NAAQS National Ambient Air Quality Standards
NAICS North American Industry Classification System
NAS National Academy of Sciences
NATA National Air Toxics Assessment
NEI National Emissions Inventory
NESHAP National Emission Standards for Hazardous Air Pollutants
NOAEL no observed adverse effects level
NRC National Research Council
NTTAA National Technology Transfer and Advancement Act
O&M operation and maintenance
OAQPS Office of Air Quality Planning and Standards
OECA Office of Enforcement and Compliance Assurance
OMB Office of Management and Budget
OM&M operation, maintenance and monitoring
PAH polycyclic aromatic hydrocarbons
PB–HAP hazardous air pollutants known to be persistent and bio-accumulative in the environment
PEL probable effect levels
PM particulate matter
POM polycyclic organic matter
REL reference exposure level
RFA Regulatory Flexibility Act
RfC reference concentration
RfD reference dose
RTR Risk and Technology Review
SAB Science Advisory Board

SAPU secondary aluminum processing unit
SBA Small Business Administration
SOP standard operating procedures
SSM startup, shutdown, and malfunction
TEQ toxicity equivalents
THC total hydrocarbons
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
UBC used beverage containers
UF uncertainty factor
μ/m3 microgram per cubic meter
UMRA Unfunded Mandates Reform Act
UPL upper prediction limit
URE unit risk estimate

Background Information. On February 14, 2012, and December 8, 2014, the EPA proposed decisions based on the RTR and proposed revisions to the Secondary Aluminum Production NESHAP based on review of the rule. In this action, we are finalizing decisions and revisions to the rule. We summarize major comments we timely received regarding the proposed rule and provide responses in this preamble. A summary of all other public comments on the proposal and the EPA's responses to those comments is available in the document, National Emission Standards for Hazardous Air Pollutants: Secondary Aluminum Production. Summary of Public Comments and Responses on Proposed Rule (77 FR 8576, February 14, 2012) and Supplemental Proposal (79 FR 72874, December 8, 2014), Docket ID No. EPA–HQ–OAR–2010–0544. A ''track changes'' version of the regulatory language that shows the regulatory changes in this action is also available in the docket for the convenience of the reader.

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

I. General Information

A. Does this action apply to me?

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

TABLE 1—INDUSTRIAL SOURCE CATEGORIES AFFECTED BY THIS FINAL ACTION

Source category	NAICS code [a]
Primary Aluminum Production Facilities	331312
Secondary Aluminum Production Facilities	331314
Aluminum Sheet, Plate, and Foil Manufacturing Facilities	331315
Aluminum Extruded Product Manufacturing Facilities	331316
Other Aluminum Rolling and Drawing Facilities	331319
Aluminum Die Casting Facilities	331521
Aluminum Foundry Facilities	331524

[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 secondary aluminum production source category. To determine whether your facility is affected, you should examine the applicability criteria in the appropriate NESHAP. If you have any questions regarding the applicability of any aspect of this NESHAP, please contact the appropriate person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section of this preamble.

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

In addition to being available in the docket, an electronic copy of this final action will 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/alum2nd/alum2pg.html.* Following publication in the **Federal Register**, the EPA will post the **Federal Register** version 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, and links to project Web sites for the RTR source categories.

C. Judicial Review and Administrative Reconsideration

Under Clean Air Act (CAA) section 307(b)(1), judicial review of this final action is available only by filing a

petition for review in the United States Court of Appeals for the District of Columbia Circuit by November 17, 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 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 West Building, 1200 Pennsylvania Ave. NW., Washington, DC 20460, with a copy to both the person(s) listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave. NW., Washington, DC 20460.

II. Background

A. What is the statutory authority for this action?

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

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

In the second stage of the regulatory process, the CAA requires the EPA to undertake two different analyses, which we refer to as the technology review and the residual risk review. Under the technology review, we must review the technology-based standards and revise them ''as necessary (taking into account developments in practices, processes, and control technologies)'' no less frequently than every 8 years, pursuant to CAA section 112(d)(6). Under the residual risk review, we must evaluate the risk to public health remaining after application of the technology-based standards and revise the standards, if necessary, to provide an ample margin of safety to protect public health or to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect. The residual risk review is required within 8 years after promulgation of the technology-based standards, pursuant to CAA section 112(f). In conducting the residual risk review, if the EPA determines that the current standards provide an ample margin of safety to protect public health, it is not necessary to revise the MACT standards pursuant to CAA section 112(f).[1] For more information on the statutory authority for this rule, see 77 FR 8576 and 79 FR 72874.

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

The EPA initially promulgated the Secondary Aluminum Production NESHAP on March 23, 2000 (65 FR 15690). The rule was amended on December 30, 2002 (67 FR 79808), September 3, 2004 (69 FR 53980), October 3, 2005 (70 FR 57513), and December 19, 2005 (70 FR 75320). The standards are codified at 40 CFR part 63, subpart RRR. The existing Subpart RRR NESHAP regulates HAP emissions from secondary aluminum production facilities that are major sources of HAP and that operate aluminum scrap shredders, thermal chip dryers, scrap dryers/delacquering kilns/decoating kilns, group 1 furnaces, group 2 furnaces, sweat furnaces, dross only furnaces, rotary dross coolers, and secondary aluminum processing units (SAPUs). The SAPUs include group 1 furnaces and in-line fluxers. The Subpart RRR NESHAP regulates HAP emissions from secondary aluminum production facilities that are area sources of HAP only with respect to emissions of dioxins/furans (D/F) from thermal chip dryers, scrap dryers/delacquering kilns/decoating kilns, group 1 furnaces, sweat furnaces, and SAPUs. The secondary aluminum industry consists of approximately 161 secondary aluminum production facilities, of which the EPA estimates 53 to be major sources of HAP. Several of the secondary aluminum facilities are co-located with primary aluminum, coil coating, and possibly other source category facilities. Natural gas boilers or process heaters may also be co-located at a few secondary aluminum facilities.

The standards promulgated in 2000 established emission limits for particulate matter (PM) as a surrogate for metal HAP, total hydrocarbons (THC) as a surrogate for organic HAP

[1] The U.S. Court of Appeals for the District of Columbia Circuit has affirmed this approach of implementing CAA section 112(f)(2)(A). *NRC 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.'').

other than D/F, D/F expressed as toxicity equivalents (TEQ), and hydrogen chloride (HCl) as a surrogate for acid gases including hydrogen fluoride (HF), chlorine, and fluorine. HAP are emitted from the following affected sources: Aluminum scrap shredders (subject to PM standards), thermal chip dryers (subject to standards for THC and D/F), scrap dryers/delacquering kilns/decoating kilns (subject to standards for PM, D/F, HCl, and THC), sweat furnaces (subject to D/F standards), dross-only furnaces (subject to PM standards), rotary dross coolers (subject to PM standards), group 1 furnaces (subject to standards for PM, HCl, and D/F), and in-line fluxers (subject to standards for PM and HCl). Group 2 furnaces and certain in-line fluxers are subject to work practice standards. For a more detailed description of the industry, processes, and the key requirements of the MACT rule, see the 2014 supplemental proposal (79 FR 72879, December 8, 2014).

C. What changes did we propose for the Secondary Aluminum Production source category in our February 14, 2012, and December 8, 2014, proposals?

On February 14, 2012, the EPA published a proposed rule in the **Federal Register** (77 FR 8576) for the Secondary Aluminum Production NESHAP, 40 CFR part 63, subpart RRR, that took into consideration the RTR analyses and other reviews of the MACT rule. We proposed that no amendments to Subpart RRR were necessary as a result of the RTR analyses. However, we proposed several amendments to correct and clarify existing requirements based on other reviews of the rule, including:

- Proposed criteria and procedures for changing furnace classification (*i.e.,* operating mode) and a limit on frequency of switching furnace classification of once per 6-month period, with an exception for control device maintenance requiring shutdown;
- Proposed amendments to clarify that performance tests under multiple scenarios may be required in order to reflect the emissions ranges for each regulated pollutant;
- Proposed compliance alternatives for testing of furnaces that do not have add-on air pollution control devices (also referred to as ''uncontrolled furnaces''), *i.e.,* either temporary installation of American Conference of Governmental Industrial Hygienists (ACGIH) hooding or, for existing uncontrolled furnaces, use of an assumption of 67-percent capture efficiency for furnace exhaust. If the source fails to demonstrate compliance using the 67-percent capture efficiency assumption, the source would have to retest within 90 days using hooding that meets ACGIH guidelines or submit a petition that such hoods are impractical and propose alternative testing procedures that will minimize unmeasured fugitive emissions;
- With regard to annual inspections of capture/collection systems, proposed codification of our existing interpretation that annual hood inspections include flow rate measurements using EPA Reference Methods 1 and 2;
- Proposed removal of exemptions from the requirement to comply with 40 CFR part 63, subpart RRR emission standards during periods of startup, shutdown, and malfunction (SSM), clarification of related provisions, and an alternative method for demonstrating compliance with certain emission limits during startup and shutdown;
- Proposed requirement for electronic submission of test results to increase the ease and efficiency of data submittal and improve data accessibility; and
- Proposed compliance date for existing affected sources to comply with the proposed amendments within 90 days after publication of the final rule.

In the 2012 proposal, we also proposed several other corrections and clarifications of the rule on the following topics based on recommendations and suggestions from individual representatives from state regulatory agencies and industry, as well as based on EPA experience, to correct errors in the rule and to help clarify the intent and implementation of the rule:

- ACGIH Guidelines;
- Testing worst-case scenarios;
- Lime injection rate;
- Flux monitoring;
- Cover flux;
- Capture and collection system definition;
- Bale breakers;
- Bag Leak Detection Systems (BLDS);
- Sidewell furnaces;
- Testing representative units;
- Initial performance tests;
- Scrap dryer/delacquering/decoating kiln and scrap shredder definitions;
- Group 2 furnace definition;
- HF emissions compliance;
- SAPU definition;
- Clean charge definition;
- Residence time definition;
- SAPU feed/charge rate;
- Dross-only versus dross/scrap furnaces;
- Applicability of rule to area sources;
- Altering parameters during testing with new scrap streams;
- Controlled furnaces that are temporarily idled for 24 hours or longer; and
- Annual compliance certification for area sources.

In the December 8, 2014, supplemental proposal (79 FR 72874), we presented a revised risk review and a revised technology review. Similar to the 2012 proposal, we found risks due to emissions of air toxics to be acceptable from this source category and we identified no cost-effective controls under the updated AMOS analysis or the technology review to achieve further emissions reductions. We proposed no revisions to the emission standards based on the revised risk and technology review. However, in the 2014 supplemental proposal, we supplemented and modified several of the proposed technical corrections and rule clarifications from the 2012 proposal, including the following:

- Revised proposed limit on the total number of furnace operating mode changes (*i.e.,* frequency) of four times in any 6-month period, with the ability of sources to apply to the appropriate authority for additional furnace operating mode changes;
- Revised wording in proposed 40 CFR 63.1511(b)(1) related to worst-case scenario testing clarifying under what conditions the performance tests are to be conducted;
- Revised proposed compliance requirements for performance testing of uncontrolled furnaces, such that if a source: (1) Chooses to use an assumption of 67-percent [2] capture/collection efficiency, instead of installing temporary hooding according to ACGIH guidelines, and (2) fails to demonstrate compliance using the 67-percent efficiency assumption, then the source must either retest using ACGIH hooding within 180 days (rather than the 90 days specified in the 2012 proposal) or petition the appropriate authority within 180 days that installing ACGIH hooding is impractical and propose alternative testing procedures that will minimize unmeasured emissions;
- Revised proposed requirement that emission sources comply with the emissions limits at all times, including periods of SSM. Proposed definitions of startup and shutdown as well as an additional alternative method for demonstrating compliance with certain emission limits during startup and shutdown;
- Revised proposed requirements for annual inspection of capture/collection

[2] The capture efficiency of 66.67 percent was rounded to 67 percent.

systems to allow additional compliance options;

• Revised proposed compliance dates of 180 days for certain requirements and 2 years for other requirements; and

• Revised operating and monitoring requirements for sweat furnaces to allow an additional compliance option.

In addition, we withdrew our 2012 proposal to include provisions establishing an affirmative defense in light of a recent court decision vacating an affirmative defense in one of the EPA's CAA section 112(d) regulations. *NRDC v. EPA,* 749 F.3d 1055 (D.C. Cir. 2014) (vacating affirmative defense provisions in CAA section 112(d) rule establishing emission standards for Portland cement kilns).

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 Secondary Aluminum Production source category. This action also finalizes changes to the NESHAP, including technical corrections and rule clarifications as well as alternative compliance options.

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

There are no rule amendments based on the risk review for this source category.

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

There are no rule amendments based on the technology review for this source category.

C. What are the final rule amendments addressing emissions during periods of startup, shutdown, and malfunction?

In its 2008 decision in *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008), the United States Court of Appeals for the District of Columbia Circuit vacated portions of two provisions in the EPA's CAA section 112 regulations governing the emissions of HAP during periods SSM. Specifically, the Court vacated the SSM exemption contained in 40 CFR 63.6(f)(1) and 40 CFR 63.6(h)(1), holding that under section 302(k) of the CAA, emissions standards or limitations must be continuous in nature and that the SSM exemption violates the CAA's requirement that some section 112 standards apply continuously.

We have eliminated the SSM exemption in this rule. Consistent with *Sierra Club* v. *EPA*, the EPA has established standards in this rule that apply at all times. We have also revised Appendix A to Subpart RRR of part 63 (the General Provisions applicability table) in several respects as is explained in more detail below. For example, we have eliminated the incorporation of the General Provisions' requirement that the source develop an SSM plan. We have also eliminated and revised certain recordkeeping and reporting that is related to the SSM exemption as described in detail in the proposed rule and summarized again here.

In establishing the standards in this rule, the EPA has taken into account startup and shutdown periods and, for the reasons explained below, has not established alternate emission standards for those periods.

We are finalizing amendments to eliminate provisions that exempt sources from the requirement to comply with the otherwise applicable CAA section 112(d) emission standards during periods of SSM. As explained in the 2012 proposal and 2014 supplemental proposal, because the scrap processed at secondary aluminum production facilities is the source of emissions, we expect emissions during startup and shutdown would be no higher, and most likely significantly lower, than emissions during normal operations since no scrap is processed during those periods. The final amendments include alternative methods for demonstrating compliance with applicable emission limits that are expressed in units of pounds per ton of feed/charge, or microgram (μg) TEQ or nanogram (ng) TEQ per megagram (Mg) of feed/charge, based on emissions during startup and shutdown and, alternatively, demonstrating compliance by keeping records that show that during startup and shutdown, the feed/charge rate was zero, the flux rate was zero, and the affected source or emission unit was heated with electricity, propane, or natural gas as the sole sources of heat or was not heated. See 40 CFR 63.1513(f).

We are also finalizing definitions for the periods of startup and shutdown to account for the fact that many furnaces are batch operations and are often in a standby condition that, under the proposed definitions, might have been considered to be shutdown. The final definition of shutdown recognizes that shutdown begins when the addition of feed/charge is halted, the heat sources are removed, and product is removed from the equipment to the greatest extent practicable, and ends when the equipment cools to near ambient temperature. The final definition recognizes that, after tapping, most furnaces (tilting furnaces are an exception) retain a molten metal heel and are not emptied completely. In the final amendments, startup is defined as beginning with equipment warming from a shutdown and ending at the point that feed/charge or flux is introduced.

Other SSM-related changes include:

• Revising 40 CFR 63.1510(s)(2)(iv), 63.1515(b)(10), 63.1516(a), 63.1516(b)(1)(v), and 63.1517(b)(16)(i) to reflect the revised requirements related to periods of SSM;

• Revising 40 CFR 63.1506(a)(5) to incorporate the general duty from 40 CFR 63.6(e)(1)(i) to minimize emissions; and

• Adding 40 CFR 63.1516(d), and 40 CFR 63.1517(b)(18) and (19) to require reporting and recordkeeping associated with periods of SSM.

Periods of startup, normal operations, and shutdown are all predictable and routine aspects of a source's operations. Malfunctions, in contrast, are neither predictable nor routine. Instead, they are, by definition, sudden, infrequent, and not reasonably preventable failures of emissions control, process, or monitoring equipment (40 CFR 63.2) (Definition of malfunction). The EPA interprets CAA section 112 as not requiring emissions that occur during periods of malfunction to be factored into development of CAA section 112 standards. Under CAA section 112, emissions standards for new sources must be no less stringent than the level ''achieved'' by the best controlled similar source and for existing sources generally must be no less stringent than the average emission limitation ''achieved'' by the best performing 12 percent of sources in the category. There is nothing in section 112 that directs the Agency to consider malfunctions in determining the level ''achieved'' by the best performing sources when setting emission standards. As the D.C. Circuit has recognized, the phrase ''average emissions limitation achieved by the best performing 12 percent of'' sources ''says nothing about how the performance of the best units is to be calculated.'' *Nat'l Ass'n of Clean Water Agencies* v. *EPA*, 734 F.3d 1115, 1141 (D.C. Cir. 2013). While the EPA accounts for variability in setting emissions standards, nothing in CAA section 112 requires the Agency to consider malfunctions as part of that analysis. A malfunction should not be treated in the same manner as the type of variation in performance that occurs during routine operations of a source. A malfunction is a failure of the source to perform in a ''normal or usual manner'' and no statutory language compels the

EPA to consider such events in setting CAA section 112 standards.

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

In the event that a source fails to comply with the applicable CAA section 112(d) standards as a result of a malfunction event, the EPA would determine an appropriate response based on, among other things, the good faith efforts of the source to minimize emissions during malfunction periods, including preventative and corrective actions, as well as root cause analyses to ascertain and rectify excess emissions. The EPA would also consider whether the source's failure to comply with the CAA section 112(d) standard was, in fact, sudden, infrequent, not reasonably preventable, and not caused in part by poor maintenance or careless operation. 40 CFR 63.2 (Definition of malfunction).

If the EPA determines in a particular case that an enforcement action against a source for violation of an emission standard is warranted, the source can raise any and all defenses in that enforcement action and the federal district court will determine what, if any, relief is appropriate. The same is true for citizen enforcement actions. Similarly, the presiding officer in an administrative proceeding can consider any defense raised and determine whether administrative penalties are appropriate. In summary, the EPA interpretation of the CAA and, in particular, CAA section 112 is reasonable and encourages practices that will avoid malfunctions. Administrative and judicial procedures for addressing exceedances of the standards fully recognize that violations may occur despite good faith efforts to comply and can accommodate those situations.

In the 2012 proposed rule, the EPA proposed to include an affirmative defense to civil penalties for violations caused by malfunctions. Although the EPA recognized that its case-by-case enforcement discretion provides sufficient flexibility, it proposed to include the affirmative defense to provide a more formalized approach and more regulatory clarity. See *Weyerhaeuser Co.* v. *Costle*, 590 F.2d 1011, 1057–58 (D.C. Cir. 1978) (holding that an informal case-by-case enforcement discretion approach is adequate); but see *Marathon Oil Co.* v. *EPA*, 564 F.2d 1253, 1272–73 (9th Cir. 1977) (requiring a more formalized approach to consideration of ''upsets beyond the control of the permit holder.''). Under the proposed regulatory affirmative defense provisions, if a source could demonstrate in a judicial or administrative proceeding that it had met the requirements of the affirmative defense in the regulation, civil penalties would not be assessed. After the 2012 proposal, the United States Court of Appeals for the District of Columbia Circuit vacated an affirmative defense in one of the EPA's CAA section 112 regulations. *NRDC* v. *EPA*, 749 F.3d 1055 (D.C. Cir., 2014) (vacating affirmative defense provisions in CAA section 112 rule establishing emission standards for Portland cement kilns). The Court found that the EPA lacked authority to establish an affirmative defense for private civil suits and held that under the CAA, the authority to determine civil penalty amounts in such cases lies exclusively with the courts, not the EPA. Specifically, the Court found: ''As the language of the statute makes clear, the courts determine, on a case-by-case basis, whether civil penalties are 'appropriate.' '' See *NRDC* at 1063 (''[U]nder this statute, deciding whether penalties are 'appropriate' in a given private civil suit is a job for the courts, not EPA.'').[3] In light of *NRDC*, the EPA in the 2014 supplemental proposal withdrew the proposed affirmative defense and is not including a regulatory affirmative defense provision in the final rule. As explained above, if a source is unable to comply with emissions standards as a result of a malfunction, the EPA may use its case-by-case enforcement discretion to provide flexibility, as appropriate. Further, as the D.C. Circuit recognized, in an EPA or citizen enforcement action, the court has the discretion to consider any defense raised and determine whether penalties are appropriate. Cf. *NRDC* at 1064 (arguments that violation were caused by unavoidable technology failure can be made to the courts in future civil cases when the issue arises). The same is true for the presiding officer in EPA administrative enforcement actions.[4]

We are revising the General Provisions table (Appendix A to Subpart RRR of 40 CFR part 63) entry for 40 CFR 63.6(e)(1)(i) by changing the ''yes'' in

[3] The Court's reasoning in *NRDC* focuses on civil judicial actions. The Court noted that ''EPA's ability to determine whether penalties should be assessed for Clean Air Act violations extends only to administrative penalties, not to civil penalties imposed by a court.'' *Id.*

[4] Although the *NRDC* case does not address the EPA's authority to establish an affirmative defense to penalties that is available in administrative enforcement actions, the EPA is not including such an affirmative defense in the final rule. As explained above, such an affirmative defense is not necessary, and in the 2014 supplemental proposal, we withdrew the proposed affirmative defense. Moreover, assessment of penalties for violatiing caused by malfunctions in administrative proceedings and judicial proceedings should be consistent, Cf. CAA section 113(e) (requiring both the Administrator and the Court to take specified criteria into account when assessing penalties).

column ''Applies to RRR'' to ''no.'' Section 63.6(e)(1)(i) describes the general duty to minimize emissions. Some of the language in that section is no longer necessary or appropriate in light of the elimination of the SSM exemption. We have instead added general duty regulatory text at 40 CFR 63.1506(a)(5) that reflects the general duty to minimize emissions while eliminating the reference to periods covered by an SSM exemption. The current language in 40 CFR 63.6(e)(1)(i) characterizes what the general duty entails during periods of SSM. With the elimination of the SSM exemption, there is no need to differentiate between normal operations, startup and shutdown, and malfunction events in describing the general duty. Therefore, the language the EPA is promulgating for Subpart RRR does not include that language from 40 CFR 63.6(e)(1).

We are also revising the General Provisions table entry for 40 CFR 63.6(e)(1)(ii) by changing the ''yes'' in column ''Applies to RRR'' to ''no.'' Section 63.6(e)(1)(ii) imposes requirements that are not necessary with the elimination of the SSM exemption or are redundant with the general duty requirement being added at 40 CFR 63.1506(a)(5).

We are revising the General Provisions table entry for 40 CFR 63.6(e)(3) by changing the ''yes'' in column ''Applies to RRR'' to ''no.'' Generally, these paragraphs require development of an SSM plan and specify SSM recordkeeping and reporting requirements related to the SSM plan. As noted, the EPA is removing the SSM exemptions. Therefore, affected units will be subject to an emission standard during such events. The applicability of a standard during such events will ensure that sources have ample incentive to plan for and achieve compliance and, thus, the SSM plan requirements are no longer necessary.

We are revising the General Provisions table entry for 40 CFR 63.6(f)(1) by changing the ''yes'' in column ''Applies to RRR'' to ''no.'' The current language of 40 CFR 63.6(f)(1) exempts sources from non-opacity standards during periods of SSM. As discussed above, the Court in *Sierra Club* vacated the exemptions contained in this provision and held that the CAA requires that some section 112 standards apply continuously. Consistent with *Sierra Club*, the EPA is revising standards in this rule to apply at all times.

We are revising the General Provisions table entry for 40 CFR 63.6(h)(1) by changing the ''yes'' in column ''Applies to RRR'' to ''no.'' The current language of 40 CFR 63.6(h)(1) exempts sources from opacity standards during periods of SSM. As discussed above, the Court in *Sierra Club* vacated the exemptions contained in this provision and held that the CAA requires that some section 112 standards apply continuously. Consistent with *Sierra Club*, the EPA is revising standards in this rule to apply at all times.

We are revising the General Provisions table entry for 40 CFR 63.7(e)(1) by changing the ''yes'' in column ''Applies to RRR'' to ''no.'' Section 63.7(e)(1) describes performance testing requirements. The EPA is instead adding a performance testing requirement at 40 CFR 63.1513(f). The performance testing requirements we are adding differ from the General Provisions performance testing provisions in several respects. The regulatory text does not include the language in 40 CFR 63.7(e)(1) that restated the SSM exemption and language that precluded startup and shutdown periods from being considered ''representative'' for purposes of performance testing. The revised performance testing provisions include alternative methods for demonstrating compliance with emission limits that are expressed in units of pounds per ton of feed/charge, or μg TEQ or ng TEQ per Mg of feed/charge. Compliance with such limits during startup and shutdown can be demonstrated using the emissions measured during startup and shutdown along with the measured feed/charge rate from the most recent performance test associated with a production rate greater than zero, or the rated capacity of the affected source if no prior performance test data are available. Alternatively, compliance can be demonstrated by keeping records that show that during startup and shutdown, the feed/charge rate was zero, the flux rate was zero, and the affected source or emission unit either was heated with electricity, propane, or natural gas as the sole sources of heat or was not heated. As in 40 CFR 63.7(e)(1), we are requiring in 40 CFR 63.1511(b) that performance tests conducted under this subpart not be conducted during malfunctions because conditions during malfunctions are often not representative of normal operating conditions. The EPA is adding language in 40 CFR 63.1517(b)(19) that requires the owner or operator to record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions are representative of startup and shutdown operations. Section 63.7(e) requires that the owner or operator make available to the Administrator such records ''as may be necessary to determine the condition of the performance test'' available to the Administrator upon request, but does not specifically require the information to be recorded. The regulatory text the EPA is adding to this provision builds on that requirement and makes explicit the requirement to record the information.

We are revising the General Provisions table (Appendix A to Subpart RRR of 40 CFR part 63) entry for 40 CFR 63.8(c)(1)(i) and (iii) by changing the ''yes'' in column ''Applies to RRR'' to ''no.'' The cross-references to the general duty and SSM plan requirements in those subparagraphs are not necessary in light of other requirements of 40 CFR 63.8 that require good air pollution control practices (40 CFR 63.8(c)(1)) and that set out the requirements of a quality control program for monitoring equipment (40 CFR 63.8(d)).

We are revising the General Provisions table entry for 40 CFR 63.8((d)(3) by changing the ''yes'' in column ''Applies to RRR'' to ''Yes, except for last sentence which refers to an SSM plan. SSM plans are not required.'' The final sentence in 40 CFR 63.8((d)(3) refers to the General Provisions' SSM plan requirement which is no longer applicable.

We are revising the General Provisions table entry for 40 CFR 63.10(b)(2)(i) by changing the ''yes'' in column ''Applies to RRR'' to ''no.'' Section 63.10(b)(2)(i) describes the recordkeeping requirements during startup and shutdown. These recording provisions are no longer necessary because the EPA is promulgating that recordkeeping and reporting applicable to normal operations will apply to startup and shutdown. In the absence of special provisions applicable to startup and shutdown, such as a startup and shutdown plan, there is no reason to retain additional records for startup and shutdown periods. However, we are adding an additional recordkeeping provision at 40 CFR 63.1517(b)(18) for owners and operators that wish to demonstrate compliance with emission limits that are expressed in units of pounds per ton of feed/charge, or μg TEQ or ng TEQ per Mg of feed/charge, during startup and shutdown by keeping records that show that during startup and shutdown no feed/charge or flux was added, only clean fuel was used, or no fuel was used.

We are revising the General Provisions table entry for 40 CFR 63.10(b)(2)(ii) by changing the ''yes'' in column ''Applies to RRR'' to ''no.'' Section 63.10(b)(2)(ii) describes the recordkeeping requirements during a malfunction. The EPA is adding such requirements to 40 CFR 63.1517. The regulatory text we are adding differs from the General Provisions it is replacing in that the General Provisions require the creation and retention of a record of the occurrence and duration of each malfunction of process, air pollution control, and monitoring equipment. The EPA is applying the recordkeeping requirement to any failure to meet an applicable standard and is requiring that the source record the date, time, and duration of the failure rather than the ''occurrence.''

We are revising the General Provisions table entry for 40 CFR 63.10(b)(2)(iv) by changing the ''yes'' in column ''Applies to RRR'' to ''no.'' When applicable, the provision requires sources to record actions taken during SSM events when actions were inconsistent with their SSM plan. The requirement is no longer appropriate because SSM plans will no longer be required. The requirement previously applicable under 40 CFR 63.10(b)(2)(iv)(B) to record actions to minimize emissions and record corrective actions is now applicable by reference to 40 CFR 63.1517.

We are revising the General Provisions table entry for 40 CFR 63.10(b)(2)(v) by changing the ''yes'' to ''no.'' When applicable, the provision requires sources to record actions taken during SSM events to show that actions taken were consistent with their SSM plan. The requirement is no longer appropriate because SSM plans will no longer be required.

We are revising the General Provisions table entry for 40 CFR 63.10(c)(15) by changing the ''yes'' to ''no.'' When applicable, the provision allows an owner or operator to use the affected source's SSM plan or records kept to satisfy the recordkeeping requirements of the SSM plan, specified in 40 CFR 63.6(e), to also satisfy the requirements of 40 CFR 63.10(c)(10) through (12). The EPA is eliminating this requirement because SSM plans will no longer be required, and, therefore, 40 CFR 63.10(c)(15) no longer serves any useful purpose.

We are revising the General Provisions table entry for 40 CFR 63.10(d)(5), including (5)(i) and (ii), by changing the ''yes'' in column ''Applies to RRR'' to ''no.'' Section 63.10(d)(5) describes the reporting requirements for SSM. We will no longer require owners or operators to determine whether actions taken to correct a malfunction are consistent with an SSM plan or report when actions taken during a startup, shutdown, or malfunction were not consistent with an SSM plan, because SSM plans will no longer be required. To replace the General Provisions reporting requirement, the EPA is adding reporting requirements to 40 CFR 63.1516(d). The replacement language differs from the General Provisions requirement in that it eliminates periodic SSM reports as a stand-alone report. We are requiring sources that fail to meet an applicable standard at any time to report the information concerning such events in the semi-annual excess emission report already required under 40 CFR part 63, subpart RRR. The report must contain the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of event, end date and time of the event, cause of the deviation or exceedance, corrective action taken, a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions. Examples of such methods would include product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters. The EPA is promulgating this requirement to ensure that there is adequate information to determine compliance, to allow the EPA to determine the severity of the failure to meet an applicable standard, and to provide data that may document how the source met the general duty to minimize emissions during a failure to meet an applicable standard.

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

This section provides a summary of other changes to the NESHAP. More details and further explanation of these changes are provided in section IV of this preamble and/or in the response to comments document, which is available in the docket for this action. These other changes include the following:

1. Clarification of applicability of rule provisions to area sources. We are finalizing revisions to clarify which operating, monitoring, performance testing, and annual compliance certification requirements apply to area sources.

2. Addition or revision of definitions. We added definitions for bale breaker, capture and collection system, HF, round top furnace, startup, shutdown, tap, and total reactive fluoride flux injection rate. We revised the definitions for aluminum scrap shredder, clean charge, cover flux, group 2 furnace, HCl, residence time, scrap dryer/delacquering/decoating kiln, and SAPU.

3. Revision of provisions to include HF. We have revised 40 CFR 63.1503, 63.1505, 63.1506, 63.1510, 63.1511, 63.1512, 63.1513, 63.1516, and Table 1 of the rule to address HF in the emission standards and in the performance testing, monitoring, and compliance demonstration provisions for group 1 furnaces.

4. Addition of criteria for changing furnace classifications and an allowed frequency of such changes of four times in any 6-month period. We are finalizing requirements for changing furnace classifications in 40 CFR 63.1510, 63.1514, and 63.1517 of the final rule.

5. Revisions to operating requirements. We are finalizing revisions to operating requirements with respect to the following:

- Provisions for controlled group 1 furnaces that will be idled for at least 24 hours in 40 CFR 63.1506(m)(7) and Table 2;
- A requirement for lime injection rate verification in 40 CFR 63.1506(m), 63.1510(i)(4), 63.1512, and Table 3; and
- Alternative compliance options for sweat furnaces in lieu of following the ACGIH Guidelines.

6. Revisions to monitoring requirements. We are finalizing revisions to monitoring requirements with regard to:

- Annual inspections of capture/collection systems in 40 CFR 63.1510(d)(2);
- Flux monitoring in 40 CFR 63.1510(j)(4) and in Table 3 of the rule;
- Bag leak detection system maintenance in 40 CFR 63.1510(f)(1)(ii) and in Table 3;
- Monitoring of sidewell group 1 furnaces in 40 CFR 63.1510(n)(1);
- SAPU compliance with emission factors in 40 CFR 63.1510(t); and
- Compliance options for sweat furnaces in 40 CFR 63.1510(d)(3) as an alternative to the monitoring requirements to conduct annual flow rate measurements using EPA Methods 1 and 2.

As a result of comments on the 2012 proposal, we are not finalizing an amendment to require a 60-day approval period for operation, maintenance and monitoring (OM&M) plans.

7. Revisions to requirements for performance testing/compliance demonstration. We are finalizing

revisions with respect to the following performance testing requirements:

- References to ACGIH guidelines in 40 CFR 63.1502 and 63.1506 and Tables 2 Table 3 for capture and collection systems;
- Section 63.1511(b)(1) and 63.1511(b)(6) to clarify the conditions under which performance tests must be conducted in order to be representative of testing for a ''worst case'' scenario and that multiple tests may be required to characterize all regulated pollutants;
- Section 63.1511(b)(3) to clarify testing requirements for batch processes;
- Section 63.1511(f)(6) to clarify that testing for representative units means that all performance tests must be conducted on the same affected source or emission unit;
- Section 63.1511(b) to allow 180 days to conduct initial performance testing;
- Section 63.1511(g)(5) with respect to altering parameters during performance testing with new feed/charge types; and
- Paragraphs in 40 CFR 63.1512(e) to clarify the requirement to account for unmeasured emissions during performance testing of uncontrolled group 1 furnaces, including:
  - Requirements for installation of temporary hooding for performance testing on uncontrolled group 1 furnaces or, for existing uncontrolled furnaces, use of 80-percent capture efficiency assumption;
  - testing requirements for new uncontrolled furnaces;
  - conditions where installation of temporary hooding that meets ACGIH guidelines is impractical; and
  - procedures to minimize unmeasured emissions during performance testing of uncontrolled furnaces.

8. Revisions to recordkeeping provisions. We are finalizing revisions to 40 CFR 63.1517(b)(4)(ii) with respect to lime injection rates, 40 CFR 63.1517(b)(14) with respect to records related to the annual inspection of capture/collection systems, and 40 CFR 63.1517(b)(19) with respect to records related to startups and shutdowns.

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

The revisions to the MACT standards being promulgated in this action are effective on September 18, 2015.

The compliance date for the final amendments listed in 40 CFR 63.1501(d) for existing secondary aluminum production affected sources is March 16, 2016. The compliance date for the final amendments listed in 40 CFR 63.1501(c) for existing affected sources is September 18, 2017. The owner or operator of a new affected source that commences construction or reconstruction after February 14, 2012, must comply with all of the requirements of this subparat by September 18, 2015 or upon startup, whichever is later.

In the 2012 proposal, we proposed that existing affected sources comply with the proposed amendments within 90 days of the publication of the final rule in the **Federal Register**. As described in detail in the 2014 supplemental proposal (79 FR 72906), commenters stated that the proposed 90-day compliance deadline was insufficient for sources to comply with certain provisions of the final rule. These commenters recommended compliance dates of 2 to 3 years due to the need to conduct operational planning, maintenance planning, reprogramming of data acquisition systems, design and installation of hooding equipment, and/or negotiations with permitting authorities to gain performance test plan approvals. The EPA agreed that the proposed 90-day compliance deadline was insufficient. However, we did not agree that sources needed 2 to 3 years to comply with all the requirements. Based on consideration of the comments and further evaluation of the amount of time needed for each of the requirements, the 2014 supplemental proposal included extended compliance periods of 180 days for the revisions listed in 40 CFR 63.1501(d). In this action, we are finalizing compliance deadlines of 180 days after publication of this final rule in the **Federal Register** for the revisions in 40 CFR 63.1501(d). For the amendments related to HF emissions (40 CFR 63.1505(i)(4) and (k)(2)), testing of existing uncontrolled furnaces (40 CFR 63.1512(e)(4), (e)(5), (e)(6) and (e)(7)), and changing furnace classification (40 CFR 63.1514), the EPA agrees that a longer time to comply is appropriate and proposed a compliance period of 2 years in the 2014 supplemental proposal. In this action, we are finalizing a compliance deadline of 2 years after publication of this final rule in the **Federal Register** for the provisions listed in 40 CFR 63.1501(e).

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

As stated in the preamble of the 2012 proposal, the EPA is taking a step to increase the ease and efficiency of data submittal and data accessibility. Specifically, the EPA is requiring owners and operators of secondary aluminum production facilities to submit electronic copies of certain required performance test reports.

As mentioned in the preamble of the proposal, data will be collected by direct computer-to-computer electronic transfer using EPA-provided software. As discussed in the proposal, the 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 at *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 cutting back on 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.

As mentioned in the proposed preamble, state, local, and tribal agencies will benefit from more streamlined and accurate review of performance test data that will be available on the EPA WebFIRE database. 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, air quality regulations, and enhancing the public's access to this important information.

G. What materials are being incorporated by reference?

In this final rule, the EPA is including regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is incorporating by reference the following documents described in the amendments to 40 CFR 63.14:

- ASTM D7520–13, Standard Test Method for Determining the Opacity of a Plume in an Outdoor Ambient Atmosphere, approved December 1, 2013.
- EPA–625/3–89–016, Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update, March 1989, U.S. Environmental Protection Agency.
- Industrial Ventilation: A Manual of Recommended Practice, 23rd Edition, 1998, Chapter 3, ''Local Exhaust Hoods'' and Chapter 5, ''Exhaust System Design Procedure.'' American Conference of Governmental Industrial Hygienists.
- Industrial Ventilation: A Manual of Recommended Practice for Design, 27th Edition, 2010, American Conference of Governmental Industrial Hygienists.

In the 2014 supplemental proposal, we identified ASTM D7520–09 as an alternative method for the currently required EPA Method 9. Since then, the method has been updated to incorporate specific requirements that we included as add-ons to our broad alternative test method approval of the 2009 version of the ASTM method. We do not expect any concerns changing to the new version because the additional requirements are handled by the vendors of the digital camera/software systems.

The EPA has made, and will continue to make, these documents generally available electronically through *www.regulations.gov* and/or in hard copy at the appropriate EPA office (see the **ADDRESSES** section of this preamble for more information).

IV. What is the rationale for our final decisions and amendments for the Secondary Aluminum 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 Secondary Aluminum Production Source Category

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

Pursuant to CAA section 112(f), we conducted a revised residual risk review and presented the results of this review, along with our proposed decisions regarding risk acceptability and AMOS, in the December 8, 2014, supplemental proposal (79 FR 72874). The results of the revised risk assessment are presented briefly below in Table 2 and in more detail in the residual risk document, *Residual Risk Assessment for the Secondary Aluminum 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.* The results of the chronic baseline inhalation cancer risk assessment indicate that, based on estimates of current actual emissions, the maximum individual risk (MIR) posed by the Secondary Aluminum Production source category from major sources and from area sources was less than 1-in-1 million. The estimated cancer incidence was slightly higher for area sources compared to the major sources due to the larger number of area sources nationwide. The total estimated cancer incidence from secondary aluminum production sources from both major and area sources based on actual emission levels was 0.002 excess cancer cases per year, with emissions of D/F, naphthalene, and Polycyclic Aromatic Hydrocarbons (PAH) contributing 48 percent, 31 percent, and 11 percent, respectively, to this cancer incidence. In addition, we note that there are no excess cancer risks greater than or equal to 1-in-1 million as a result of inhalation exposure to actual emissions from this source category over a lifetime. The maximum modeled chronic non-cancer hazard index (HI) target organ-specific HI (TOSHI) value for the source category for both major and area sources based on actual emissions was estimated to be 0.04, with HCl emissions from group 1 furnaces accounting for 99 percent of the HI.

TABLE 2—SECONDARY ALUMINUM PRODUCTION SOURCE CATEGORY INHALATION RISK ASSESSMENT RESULTS

Number of facilities modeled	Maximum individual cancer risk (in 1-million) [a]		Estimated annual cancer incidence (cases/yr) [d]	Estimated population at increased risk of cancer ≥ 1-in-1 million [d]	Maximum chronic non-cancer TOSHI [b]		Worst-case maximum screening acute non-cancer HQ [c]
	Based on actual emissions	Based on allowable emissions			Based on actual emissions level	Based on allowable emissions level	
Major Sources (52)	0.6	4	0.0007	0	0.04	0.1	$HQ_{(REL)}$ = 0.7 (HF). $HQ_{(AEGL1)}$ = 0.4 (HCl).
Area Sources (103)	0.3	1	0.001	0	0.0003	0.001	NA.
Facility-wide (52 Major Sources)	70	NA	0.05	760,000	1	NA	NA.

[a] Estimated maximum individual excess lifetime cancer risk due to HAP emissions from the source category for major sources and D/F emissions from the source category for area sources.
[b] Maximum TOSHI. The target organ with the highest TOSHI for the Secondary Aluminum Production source category for both actual and allowable emissions is the respiratory system.
[c] There is no acute dose-response value for D/F. Thus an acute hazard quotient (HQ) value for area sources was not calculated. The maximum off-site HQ acute value of 0.7 for actuals is driven by emissions of hydrofluoric acid. See section III.A.3 of the 2014 supplemental proposal (79 FR 72885) for explanation of acute dose-response values. Acute assessments are performed based on actual emissions.
[d] These estimates are based upon actual emissions.

When considering MACT-allowable emissions, the inhalation cancer MIR was estimated to be up to 4-in-1 million, driven by emissions of D/F compounds, naphthalene, and PAHs from the scrap dryer/delacquering/decoating kiln. The estimated potential cancer incidence considering allowable emissions for both major and area sources was estimated to be 0.014 excess cancer cases per year, or 1 case every 70 years. Approximately 3,400 people were estimated to have cancer risks greater than or equal to 1-in-1 million considering allowable emissions from

secondary aluminum production plants. When considering MACT-allowable emissions, the maximum chronic non-cancer TOSHI value was estimated to be 0.1, driven by allowable emissions of HCl from the group 1 furnaces.

b. *Acute Risk Results.* Our screening analysis for worst-case acute impacts based on actual emissions indicates no pollutants exceeding an HQ value of 1 based upon the REL.

c. *Multipathway Risk Screening Results.* Results of the worst-case Tier 1 screening analysis indicated that 36 of the 52 major sources exceeded the persistent and bio-accumulative HAP (PB–HAP) emission cancer screening rates (based on estimates of actual emissions) for D/F, and 3 of the 52 major sources exceeded the Tier 1 screen value for PAHs. Regarding area sources, 60 of the 103 area sources exceeded the PB–HAP emission cancer screening rates (based on estimates of actual emissions) for D/F. For the compounds and facilities that did not screen out at Tier 1, we conducted a Tier 2 screen. The Tier 2 screen replaces some of the assumptions used in Tier 1 with site-specific data, including the location of fishable lakes and local precipitation, wind direction, and speed. The Tier 2 screen continues to rely on high-end assumptions about consumption of local fish and locally grown or raised foods (adult female angler at 99th percentile consumption for fish for the subsistence fisherman scenario and 90th percentile consumption for locally grown or raised foods for the farmer scenario). It is important to note that, even with the inclusion of some site-specific information in the Tier 2 analysis, the multipathway screening analysis is still a very conservative, health-protective assessment (*e.g.,* upper-bound consumption of local fish and locally grown and/or raised foods). In all likelihood, this analysis will yield results that serve as an upper-bound multipathway risk associated with a facility.

While the screening analysis was not designed to produce a quantitative risk result, the factor by which the emissions exceed the threshold serves as a rough gauge of the ''upper-limit'' risks we would expect from a facility. Thus, for example, if a facility emitted a PB–HAP carcinogen at a level 2 times the screening threshold, we can say with a high degree of confidence that the actual maximum cancer risks will be less than 2-in-1 million. Likewise, if a facility emitted a noncancer PB–HAP at a level 2 times the screening threshold, the maximum noncancer hazard would represent an HQ less than 2. The high degree of confidence comes from the fact that the screens are developed using the very conservative (health-protective) assumptions that we describe above.

Based on the Tier 2 cancer screening analysis, 25 of the 52 major sources and 34 of the 103 area sources emitted D/F above the Tier 2 cancer screening thresholds for the subsistence fisher and farmer scenarios. The individual D/F emissions were all scaled based on their toxicity to 2,3,7,8-tetrachlorodibenzo-p-dioxin and reported as TEQ. The subsistence fisher scenario for the highest risk facilities exceeded the D/F cancer threshold by a factor of 80 for the major sources and by a factor of 70 for the area sources. The Tier 2 analysis also identified 23 of the 52 major sources and 26 of the 103 area sources emitting D/F above the Tier 2 cancer screening thresholds for the subsistence farmer scenario. The highest exceedance of the Tier 2 screen value was 40 for the major sources and 20 for the area sources for the farmer scenario.

We had only one major source emitting PAHs above the Tier 2 cancer screen value with an exceedance of 2 for the farmer scenario. All PAH emissions were scaled based on their toxicity to benzo(a)pyrene and reported as TEQ.

A more refined Tier 3 multipathway screening analysis was conducted for six Tier 2 major source facilities. The six facilities were selected because the Tier 2 cancer screening assessments for these facilities had exceedances greater than or equal to 50 times the screen value for the subsistence fisher scenario. The major sources represented the highest screened cancer risk for multipathway impacts. Therefore, further screening analyses were not performed on the area sources. The Tier 3 screen examined the set of lakes from which the fisher might ingest fish. Any lakes that appeared not to be fishable or not publicly accessible were removed from the assessment, and the screening assessment was repeated. After we made the determination the critical lakes were fishable, we analyzed plume rise data for each of the sites. The Tier 3 screen was conducted only on those HAP that exceeded the Tier 2 screening threshold, which for this assessment were D/F and PAHs. Both of these PB–HAP are carcinogenic. The Tier 3 screen resulted in lowering the maximum exceedance of the screen value for the highest site from 80 to 70. Results for the other sites were all less than 70. The highest exceedance of the Tier 2 cancer screen value of 40 for the farmer scenario was also reduced in the Tier 3 screening assessment to a value of 30 for the major sources within this source category.

Overall, the refined multipathway screening analysis for D/F and PAHs utilizing the Tier 3 screen predicted a potential lifetime cancer risk of 70-in-1 million or lower to the most exposed individual, with D/F emissions from group 1 furnaces handling other than clean charge driving the risk. Cancer risks due to PAH emissions for the maximum exposed individual were less than 1-in-1 million.

The chronic non-cancer HQ was predicted to be below 1 for cadmium compounds and 1 for mercury compounds. For lead, we did not estimate any exceedances of the Primary Lead National Ambient Air Quality Standards (NAAQS).

Further details on the refined multipathway screening analysis can be found in Appendix 8 of the *Residual Risk Assessment for the Secondary Aluminum Production Source Category in Support of the 2015 Risk and Technology Review Final Rule,* which is available in the docket.

d. *Environmental Risk Screening Results.* We conducted an environmental risk screening assessment for the Secondary Aluminum Production source category for the following seven pollutants: PAHs, mercury (methyl mercury and mercuric chloride), cadmium, lead, D/F, HCl, and HF.

Of the seven pollutants included in the environmental risk screen, major sources in this source category emit PAHs, mercuric chloride, cadmium, lead, D/F, HCl, and HF. In the Tier 1 screening analysis for PB–HAP, 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 (LOAEL) or no observed adverse effects level (NOAEL)) for PAHs, mercuric chloride, cadmium, and D/F. For lead, we did not estimate any exceedances of the Secondary Lead NAAQS. For HCl and HF, the average modeled 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. In addition, each individual modeled concentration of HCl and HF (*i.e.*, each off-site data point in the modeling domain) was below the ecological benchmarks for all facilities.

Of the seven pollutants included in the environmental risk screen, area sources in this source category are regulated only for D/F. In the Tier 1 screening analysis for D/F, none of the individual modeled concentrations for any facility in the source category exceeded any of the ecological

benchmarks (either the LOAEL or NOAEL) for D/F.

e. *Facility-wide Risk Assessment Results.* Considering facility-wide emissions at the 52 major sources, the MIR was estimated to be 70-in-1 million driven by arsenic and nickel emissions, and the chronic non-cancer TOSHI value was calculated to be 1, driven by emissions of cadmium compounds. The above risks were driven by emissions from the potline roof vents at the co-located primary aluminum production operations. The Secondary Aluminum Production source category represents less than 1 percent of the inhalation risks from the facility-wide assessment based upon actual emissions. The risks due to primary aluminum production operations are being addressed in a separate RTR rulemaking for the Primary Aluminum Production source category that EPA plans to finalize later this year.

f. *What demographic groups might benefit from this regulation?* We conducted a proximity analysis during the development of the proposed rule, and that analysis is also being used in support of this final rule. We conclude that this rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not affect the level of protection provided to human health or the environment. However, the final rule will provide additional benefits to these demographic groups by improving the compliance, monitoring and implementation of the NESHAP.

The detailed results of the proximity analyses can be found in the *EJ Screening Report for Secondary Aluminum Area Sources and the EJ Screening Report for Secondary Aluminum Major Sources,* which are available in the docket for this rulemaking.

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

No new information was received that would alter the results of the revised risk review presented in support of the 2014 supplemental proposal, so no changes were made.

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

Several comments were received regarding the revised risk assessment for the Secondary Aluminum Production source category. The following is a summary of some key 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: Secondary Aluminum Production Summary of Public Comments and Responses on Proposed Rule (77 FR 8576, February 14, 2012) and Supplemental Proposal (79 FR 72874, December 8, 2014),* which is available in the docket for this action.

Comment: One commenter [5] stated that the EPA should reconsider its finding of acceptable risk and instead find risks unacceptable for the following reasons.

The multipathway risk from D/F emissions: *i.e.*, a lifetime cancer risk of up to 70-in-1 million for the most-exposed individual to emissions via a fish (''fisher'') route of exposure, and an additional cancer risk of up to 30-in-1 million for the most-exposed individual to such emissions from a farm (''farmer'') route of exposure. These exposures add up to 100-in-1 million. The EPA has a policy of adding cancer risks to determine the most-exposed individual's maximum risk. The EPA estimates cancer risks ''as the sum of the risks for each of the carcinogenic HAP'' because ''[s]umming the risks of these individual compounds to obtain the cumulative cancer risks is an approach that was recommended by the EPA's SAB in their 2002 peer review of the EPA's National Air Toxics Assessment.'' 79 FR 72886 and n.7 (citing National Air Toxic Assessment (NATA)—Evaluating the National-scale Air Toxics Assessment 1996 Data—a Science Advisory Board (SAB) Advisory). The Agency has given no valid justification for not recognizing that the maximum cancer risk from multipathway exposure could be as high as 100-in-1 million, sufficient for the EPA to find risk unacceptable. Furthermore, the EPA has recognized that the inhalation-based cancer risk could be as high as 4 (based on allowable emissions), or 0.6 (based on so-called ''actual'' emissions). Adding this risk (whether 0.6 or 4) to 100-in-1 million would exceed the EPA's benchmark of 100-in-1 million. The EPA has provided no valid basis for not adding inhalation and multipathway cancer risks. The EPA should look at the whole picture of cancer risk, in view of its additive policy for cancer. Thus, together these data points show that the EPA should find total cancer risk from this source category to be unacceptable.

Moreover, the EPA's multipathway risk does not evaluate all persistent and/or bioaccumulative pollutants, and, thus, its multipathway risk assessment is likely underestimating these risks. The EPA should evaluate all persistent, bioaccumulative, and toxics (PBTs) emitted by the secondary aluminum source category, including all HAP metals emitted (such as arsenic and nickel).

In addition, if inhalation-based cancer risk is more than 3 times as high from allowable emissions (as from so-called ''actual'' emissions), then multipathway-based cancer risk, which the EPA has not evaluated based on allowable emissions, is also likely to be more than 3 times as high, or at least higher than the numbers the EPA found. Thus, the fish-based risk could be as high as 210-in-1 million, and the farm-based risk could be as high as 90-in-1 million; together, the maximum multipathway cancer risk the EPA should be considering for the most-exposed individual is 300-in-1 million. The EPA has given no valid justification for not considering allowable emissions-based risk from multipathway exposure. Doing so would lead the Agency to find cancer risk from multipathway exposure to be well above 100-in-1 million.

The commenter stated that the above analysis shows why, based on cancer risk alone, the EPA should find secondary aluminum plants' current risk is unacceptable and, thus, set standards to reduce these plants' D/F and other cancer-causing emissions.

The commenter stated that the EPA also found other health risks, including chronic non-cancer and acute risks, which only add more evidence of the harm the most-exposed individual faces from this source category. The commenter stated that, for example, the acute HQ from HF is 0.7, and from HCl is 0.4, which, added together, to consider the maximum acute risk, would be 1.1, above the level at which the EPA recognizes harm can occur. The commenter stated that the EPA has not added these risks, nor given any valid justification for not doing so, even though if there is an acute spike in emissions, it is just as likely that the most-exposed person would breathe various pollutants that may spike together—*i.e.*, HCl, HF, and other pollutants, not just each pollutant individually. The commenter stated that the EPA's acute HQ is likely too low.

The commenter stated that it is also unclear whether the EPA has used the most current, most protective D/F reference doses and concentrations, including the 2012 D/F value of 7×10^{-10} milligram (mg)/kilogram (kg)-day, for chronic oral exposure; the EPA should confirm that it has used the best

[5] In summarizing the key comments, we have indicated when a comment was submitted on the 2014 supplemental proposal. Unless otherwise noted, the remaining comments were submitted on the 2012 proposed rule.

available scientific information on reference values. The commenter stated that the EPA should follow the best available scientific approach to risk assessment, as shown in California's risk assessment guidance manual and supporting scientific documents.

Response: We disagree with the commenter's arguments for finding risks to be unacceptable and have combined risk to the extent that it is appropriate to do so. We explain below and in the Residual Risk Assessment document, which is available in the docket for this rulemaking, why we do not sum the risk results from the fisher and farmer scenarios in our multipathway analysis and why we do not combine the risk values from our inhalation assessment with those of the multipathway analysis. We also explain the scope of our multipathway analysis in terms of the pollutants, the source of their dose-response values, and the emission levels. In addition, we explain below why we do not use a TOSHI approach for acute analyses. (See also the *Residual Risk Assessment for the Secondary Aluminum Production Source Category in Support of the 2015 Risk and Technology Review Final Rule*.)

In the multipathway screening assessment, we did not sum the risk results of the fisher and farmer scenarios. The modeling approach used for this analysis constructs two different exposure scenarios, which serves as a conservative estimate of potential risks to the most-exposed receptor in each scenario. Based on the information and assumptions in the assessment, it is highly unlikely that the most-exposed farmer is the same person as the most-exposed fisher, therefore, it is not reasonable to add risk results from these two exposure scenarios. (See Appendix 5 and Section 2.5 of the *Residual Risk Assessment for the Secondary Aluminum Production Source Category in Support of the 2015 Risk and Technology Review Final Rule*.)

We disagree with the commenter's statement that we should combine the results of our inhalation and multipathway assessments for this source category. We determined that it would be inappropriate to do so based on the differences in the design and results of the two types of assessments, as well as the highly conservative nature of the multipathway assessment. First, the screening scenario is a hypothetical scenario, and, due to the theoretical construct of the screening model, exceedances of the thresholds are not directly translatable into, or additive with, estimates of risk or HQ for these facilities. The result of the multipathway screen is number representing an exceedance of a benchmark, which is a ratio, and the results of a cancer risk assessment is a mathematical probability (*i.e.,* increased risk of cancer due to exposure to the HAP emissions from the source category). It is not mathematically appropriate or consistent to add them together. Second, the multipathway risk assessment was a screening-level assessment and not a full risk assessment. The screening assessment used highly conservative assumptions designed to ensure that facilities with results below the screening threshold values did not have the potential for multipathway impacts of concern. The results of the multipathway screen represent a high-end estimate of what the multipathway risk or hazard may be. For example, an exceedance of 2 for a non-carcinogen can be interpreted to mean that we have high confidence that the hazard would be less than 2. Similarly, an exceedance of 30 for a carcinogen means that we have high confidence that the risk is lower than 30-in-1 million. Our confidence comes from the conservative, health-protective assumptions that are in the multipathway screens: We choose inputs from the upper end of the range of possible values for the influential parameters used in the screens; and we assume that the exposed individual exhibits ingestion behavior that would lead to a high total multipathway exposure. We conclude that it is not appropriate to sum the risk results from the chronic inhalation assessment and the screening multipathway assessment. In addition, it is highly unlikely that the same receptor has the maximum results in both assessments. In other words, it is unlikely that the person with the highest chronic inhalation cancer risk is also the same person with the highest individual multipathway cancer risk because it is unlikely that the same receptor has the maximum exposure and risk in both assessments.

We currently do not have screening values for some PB–HAP, but we disagree that the multipathway assessment is inadequate because it did not include ''all HAP metals emitted (such as arsenic and nickel).'' We developed the current PB–HAP list considering all available information on persistence and bioaccumulation (see *http://www2.epa.gov/fera/air-toxics-risk-assessment-reference-library-volumes-1-3,* specifically Volume 1, Appendix D). (The Air Toxics Risk Assessment Reference Library presents the decision process by which the PB–HAP were selected and provides information on the fundamental principles of risk-based assessment for air toxics and how to apply those principles.) In developing the list, we considered HAP identified as PB–HAP by other EPA Program Offices (*e.g.,* the Great Waters Program), as well as information from the PBT profiler (see *http://www.pbtprofiler.net/*). Considering this list was peer-reviewed by the SAB and found to be acceptable, we believe it to be reasonable for use in risk assessments for the RTR program. Based on these sources and the limited available information on the persistence and bioaccumulation of other HAP, we do not believe that the potential for multipathway risk from other HAP not on the list, such as other metal HAP including arsenic and nickel, rises to the level of the PB–HAP on the list. However, in the future, we may add more pollutants to the multipathway analysis if we determine it is appropriate to do so.

Regarding the commenter's assertion that we did not base the multipathway risk assessment on allowable emissions, we believe it is reasonable for the multipathway risk assessment to be based on actual emissions for this source category, and not the allowable level of emissions that facilities are permitted to emit. The uncertainties associated with the multipathway screen along with uncertainties in the allowable emissions estimates, which are highly variable for this source category, would make a multipathway risk assessment based on allowable emissions highly uncertain. Such an assessment would be too uncertain to support a regulatory decision. Many of the best-performing (based on actual emissions) sources have allowable emissions that are orders of magnitude greater than their actual emissions, and those facilities could not reasonably be expected to operate in such a manner that would result in emissions that even approach our estimates of allowable emissions.

The commenter also argues for summing acute hazard quotients from different HAP to assess acute non-cancer risk. We do not sum results of the acute noncancer inhalation assessment to create a combined acute risk number that would represent the total acute risk for all pollutants that act in a similar way on the same organ system or systems (analogous to the chronic TOSHI) because the worst-case acute screen is already a conservative scenario. The acute screening scenario assumes worst-case meteorology, peak emissions for all emission points occurring concurrently and an individual being located at the site of

maximum concentration for an hour. Thus, as noted in the risk assessment report available in the docket, ''because of the conservative nature of the acute inhalation screening and the variable nature of emissions and potential exposures, acute impacts were screened on an individual pollutant basis, not using the TOSHI approach.''

The dose-response values used in the risk assessment, including those for D/F, are based on the current peer reviewed Integrated Risk Information System (IRIS) values, as well as other similarly peer-reviewed values. Our approach, which uses conservative tools and assumptions, ensures that our decisions are appropriately health protective and environmentally protective. The approach for selecting appropriate health benchmark values, in general, places greater weight on the EPA derived health benchmarks than those from other agencies (see *http://www.epa.gov/ttn/atw/nata1999/99pdfs/healtheffectsinfo.pdf*). This approach has been endorsed by the SAB. The SAB further recommended that the EPA scrutinize values that emerge as drivers of risk assessment results and the Agency has incorporated this recommendation into the risk assessment process. This may result in the EPA determining that it is more appropriate to use a peer-reviewed dose-response value from another agency even if an IRIS value exists.

We generally draw no bright lines of acceptability regarding cancer or noncancer risks from source category HAP emissions. It is always important to consider the specific uncertainties of the emissions and health effects information regarding the source category in question when deciding exactly what level of cancer and noncancer risk should be considered acceptable. In addition, the source category-specific decision of what constitutes an acceptable level of risk should be a holistic one; that is, it should simultaneously consider all potential health impacts—chronic and acute, cancer and noncancer, and multipathway—along with their uncertainties, when determining the acceptable level of source category risk. The Benzene NESHAP decision framework of 1989 acknowledged this; such flexibility is imperative, because new information relevant to the question of risk acceptability is being developed all the time, and the accuracy and uncertainty of each piece of information must be considered in a weight-of-evidence approach for each decision. This relevant body of information is growing fast (and will continue to do so), necessitating a flexible weight-of-evidence approach that acknowledges both complexity and uncertainty in the simplest and most transparent way possible. While this challenge is formidable, it is nonetheless the goal of the EPA's RTR decision-making, and it is the goal of the risk assessment to provide the information to support the decision-making process.

Comment: One commenter recommended that the EPA consider potential or allowable emissions, rather than actual emissions, as much as possible in evaluating residual risk. The commenter stated that because facility emissions could increase over time for a variety of reasons, and with them the associated impacts, the use of potential or allowable emissions is more appropriate; an analysis based on actual emissions from a single point in time could underestimate the risk. The commenter stated that the major source HAP thresholds are based on maximum potential-to-emit, as opposed to actual emissions, and air agencies issue permits based on potential emissions. The commenter stated that limiting the scope of a risk evaluation to actual emissions would be inconsistent with the applicability section of 40 CFR part 63 rules. The commenter stated that they were pleased that the EPA used allowable emissions in parts of the rulemaking, but were concerned that the EPA continues to use actual emissions in other parts of its assessment. The commenter encouraged the agency to use allowable emissions in the future, including in assessing acute health risks.

One commenter agreed that the EPA appropriately concluded that secondary aluminum production does not pose risks warranting standard revision under section 112(f) of the CAA. The commenter noted that under the proposal, the EPA would find that the risks from the emission of HAP from sources in the Secondary Aluminum Production source category are acceptable and that the current MACT standards provide an AMOS to protect public health and prevent an adverse environmental effect. The commenter stated that to determine these findings, the EPA utilized both MACT-allowable and actual emissions data for its risk analysis. The commenter supported the findings of acceptable risk and an AMOS, but noted that the use of MACT-allowable emissions in the risk assessment process is not required for such a finding.

The commenter indicated that the use of actual emissions in risk assessments is more accurate than MACT-allowable emissions and is supported by the language of CAA section 112(f). The EPA is required to promulgate emission standards under CAA section 112(f) if ''excess cancer risks to the individual most exposed to emissions from a source'' are 1 in 1 million or greater. The commenter states that the statute does not use words such as ''maximum allowable,'' or ''potential.'' Rather, the statute limits the risk review to consider the risks to the individual most exposed to the emissions from a particular source. The commenter concluded that it is clear from the wording of the statute that Congress intended the EPA to estimate risk based on the actual exposure. The commenter also stated that MACT-allowable emissions represent a hypothetical, worst-case, emissions level to which an individual is unlikely to ever be exposed, especially given the already conservative assumptions inherent in the risk models. The commenter claimed that basing emission standards on worst-case scenarios can lead to imposition of costly and unnecessary controls which do little to reduce actual risk. The commenter claimed that, given that the EPA has actual emissions data from secondary aluminum production facilities, it should base its risk assessments on this best available data.

In contrast, another commenter stated that they support the findings of acceptable risk, AMOS; and they also support the EPA's revisions to the allowable emissions calculation method that uses the actual amount of charge; however, the use of MACT-allowable emissions in the risk assessment process is not required for such a finding. The commenter stated that due to process variability, sources cannot emit HAP at MACT-allowable levels at all times and remain in compliance and it is likely that sources may reduce their emissions due to state or local rules, or for reasons other than compliance. The commenter stated that basing emission standards on worst-case scenarios can lead to imposition of costly and unnecessary controls, which do little to reduce actual risk. The commenter stated that the EPA points to two previous actions in which the EPA noted that the use of allowable emissions was reasonable; however, in both of these actions, the EPA used actual emissions because they were the most accurate data available. Because the EPA has actual emissions data from secondary aluminum production facilities, the commenter asserted that it should base its risk assessments on these data. The commenter further stated that, to the extent that the EPA continues to calculate allowable emissions, they support the EPA's use of

actual charge rates, which reflect real production rates and should result in more accurate allowable emissions totals than maximum production capacity.

Response: Consistent with previous risk assessments, the EPA considers both allowable and actual emissions in assessing chronic exposure and risk under CAA section 112(f)(2). See, *e.g.,* National Emission Standards for Coke Oven Batteries (70 FR 19998–19999, April 15, 2005); proposed and final National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry (71 FR 34428, June 14, 2006, and 71 FR 76603, December 21, 2006). This approach is both reasonable and consistent with the flexibility inherent in the Benzene NESHAP framework for assessing acceptable risk and AMOS. As a general matter, modeling allowable emission levels is inherently reasonable since this reflects the maximum level sources could emit and still comply with national emission standards. But it is also reasonable to consider actual emissions, where such data are available, in the acceptable risk and AMOS analyses. See National Emission Standards for Coke Oven Batteries, 70 FR 19992, 19998 (April 15, 2005). The risk assessment for the Secondary Aluminum Production source category was conducted using actual and allowable emissions, and all of the results were considered in determining risk acceptability and AMOS. We agree with the commenter that it is appropriate to estimate allowable emissions using production rates that reflect current operations rather than using maximum production capacity. See *Residual Risk Assessment for the Secondary Aluminum Production Source Category in Support of the 2015 Risk and Technology Review Final Rule.*

One commenter claims that limiting our review to actual emissions would be inconsistent with the applicability section of 40 CFR part 63 rules. As explained above and in the 2014 supplemental proposal, however, we did not limit our review to actual emissions, but rather considered actual emissions and allowable emissions, as appropriate, in particular portions of the risk assessment. The commenter also urges the Agency to rely on allowable emissions for the purpose of our acute screening assessment. We did not rely on allowable emissions for the acute screening assessment due to the conservative assumptions used to gauge worst-case potential acute health effects. The conservative assumptions built into the acute health risk screening analysis include: (1) Use of peak 1-hour emissions that are on average 10 times the annual average 1-hour emission rates; (2) that all emission points experience peak emissions concurrently; (3) worst-case meteorology (from 1 year of local meteorology); and (4) that a person is located downwind at the point of maximum impact during this same 1hour period. Thus, performing an acute screen based on allowable emissions would be overly conservative and, at best, of questionable utility to decision makers.

We also note that our use of allowable emission levels in the risk assessments in this rulemaking did not result in revising the previously established standards due to risk concerns. Therefore, our consideration of allowable emissions in the risk assessments did not result in regulatory decisions that affect any facilities.

Comment: One commenter on the supplemental proposal stated that at least nine secondary aluminum facilities have co-located primary aluminum operations, and for both source categories the EPA found that the facility-wide MIR is 70-in-1 million, driven by arsenic, nickel, and hexavalent chromium, and that the TOSHI (chronic non-cancer risk) is 1, driven by cadmium. The commenter stated that both numbers appear to consider only inhalation risk and must be viewed in context, as scientists have directed the EPA to do. The commenter stated that, if considered in combination with the high secondary aluminum multipathway risk, and with the high inhalation and multipathway risks for primary aluminum, the facility-wide cancer risk provides additional evidence that risks from both source categories are unacceptable, because the most-exposed person's full amount of risk is the combined amount from the co-located primary and secondary aluminum, not just each source category separately. The commenter stated that it would be unlawful and arbitrary to consider each type of risk separately, when people near both sources are exposed to both kinds of risk at the same time, and, thus, face a higher overall amount of risk.

The commenter stated that the EPA has offered and can offer no valid justification for not finding risk from both source categories (including primary aluminum prebake, and secondary aluminum) to be unacceptable based on the co-located and combined risks. The commenter stated that the EPA may not lawfully ignore the full picture of risk that its combined rulemakings show is present for people exposed simultaneously to both source categories at the same facility.

The commenter further stated that, because the EPA only assessed facility-wide risks based on so-called ''actual'' emissions, the facility-wide risk number could be at least 1.5 to 3 times higher. The commenter bases this assertion on the EPA's recognition that allowable emissions from primary aluminum are about 1.5 to 1.9 times higher than actual emissions and the fact that allowable emissions from secondary aluminum are at least 3 times higher than actual emissions.

The commenter stated that it is important that EPA is evaluating facility-wide risk from sources in multiple categories that are co-located and that EPA needs to consider the results of such facility-wide analyses when determining if stronger standards should be established for these sources. The commenter stated that this rulemaking is an important opportunity for the EPA to recognize the need to act based on data showing significant combined and cumulative risks and impacts at the facility-wide level. The commenter stated that the EPA is also required to do so to meet its CAA section 7412(f)(2) duties.

The commenter stated that the EPA also should be evaluating the cumulative risks from all nearby toxics sources in multiple source categories, not looking only at multiple sources in the same category, and different sources at the same facility. The commenter stated that the EPA has said it recognizes the need to put risk in context, but still has not even attempted to evaluate the bigger picture of health risks by looking at all nearby sources (from various source categories, including those collocated and those not collocated). According to the commenter, in doing so would likely lead to recognizing that the individual most-exposed to each of these source categories is also experiencing significant risks from other sources, providing even more evidence as to why the EPA should reduce risks from the primary and secondary aluminum source categories.

Response: With regard to facility-wide assessments, we conducted such assessments for all 52 major sources in the source category, including the nine secondary aluminum production facilities co-located with primary aluminum reduction plants. The methods and results of the facility-wide risk assessment, in addition to the inhalation and multipathway analyses for facilities in the source category, are discussed above and in the risk

assessment document for the 2014 supplemental proposal, as well as in the risk assessment document for the 2015 final rule. Specifically, we modeled whole-facility inhalation risks for both chronic cancer and non-cancer impacts to understand the risk contribution of the sources within the secondary aluminum source category to facility-wide risks. The individual cancer risks for the source category were aggregated for all carcinogens. In assessing noncancer hazard from chronic exposures for pollutants that have similar modes of action or (where this information is absent) that affect the same target organ, we aggregated the HQ. This process creates, for each target organ, a TOSHI, defined as the sum of hazard quotients for individual HAP that affect the same organ or organ system. All TOSHI calculations presented here were based exclusively on effects occurring at the ''critical dose'' (*i.e.*, the lowest dose that produces adverse health effects). Whole facility risks were estimated based on emissions data obtained from facilities.

The commenter stated that the EPA must find the risks unacceptable based on the whole-facility risks from co-located primary and secondary aluminum operations. The EPA does not typically include whole-facility assessments in the CAA section 112(f) acceptability determination for a source category. Reasons for this include the fact that emissions and source characterization data are usually not of the same vintage and quality for all source categories that are on the same site, and thus the results of the whole-facility assessment are generally not appropriate to include in the regulatory decisions regarding acceptability. However, in this rare case, we are developing the risk assessments for primary and secondary aluminum production at the same time. The data are generally of the same vintage and we have actual emissions data and source characterization data for both source categories. In response to the comment, we refer to the facility-wide risk assessment, which included the nine facilities with co-located primary and secondary aluminum operations. As discussed above and shown in Table 2, for the facility with the highest risk from inhalation, the facility-wide MIR for cancer from actual emissions is 70-in-1 million. The facility-wide non-cancer hazard is 1. The highest facility-wide exceedance of the multipathway screen is 70. There was no facility-wide exceedance of a noncancer threshold in the multipathway screen. Considering these facility-wide results as part of the acceptability determination does not change our determination that the risks are acceptable for the secondary aluminum source category. We note that while the incorporation of additional background concentrations from the environment in our risk assessments (including those from mobile sources and other industrial and area sources) could be technically challenging, they are neither mandated nor barred from our analysis. In developing the decision framework in the Benzene NESHAP used for making residual risk decisions, the EPA rejected approaches that would have mandated consideration of background levels of pollution in assessing the acceptability of risk, concluding that comparison of acceptable risk should not be associated with levels in polluted urban air (54 FR 38044, 38061, September 14, 1989). Background levels (including natural background) are not barred from the EPA's AMOS analysis, and the EPA may consider them, as appropriate and as available, along with other factors, such as cost and technical feasibility, in the second step of its CAA section 112(f) analysis. As discussed in the 2014 supplemental proposal, the risk assessment for this source category did not include background contributions (that may reflect emissions that are from outside the source category and from other than co-located sources) because the available data are of insufficient quality upon which to base a meaningful analysis.

The commenter is correct that we based our facility-wide risk assessment on actual emission rather than on estimated allowable emissions. Because the facility-wide allowable emissions estimates have not been subjected to the same level of scrutiny, quality assurance, and technical evaluation as the actual emissions estimates from the source category, a facility-wide risk assessment based on allowable emissions estimates would be too uncertain to support a regulatory decision.

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

As discussed above and in the 2014 supplemental proposal, after considering health risk information and other factors, including uncertainties, we determined that the risks from the Secondary Aluminum Production source category are acceptable and the current standards provide an AMOS to protect public health. In summary, our revised risk assessment indicates cancer risks below the presumptive limit of acceptability and non-cancer results indicating minimal likelihood of adverse health effects, and we identified no control technologies or other measures that would be cost effective in further reducing risks (or potential risks). In particular, we did not identify any cost-effective approaches to further reduce D/F emissions and multipathway risk beyond what is already being achieved by the current NESHAP.

B. Technology Review for the Secondary Aluminum Production Source Category

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

Pursuant to CAA section 112(d)(6), we conducted a technology review to identify and evaluate developments in practices, processes and control technologies for the Secondary Aluminum Production source category, as described in the 2012 proposal. Details of the technology review and its findings are available in the memoranda, *Draft Technology Review for the Secondary Aluminum Production Source Category* (Docket item EPA–HQ–OAR–2010–0544–0144) and *Draft Technical Support Document for the Secondary Aluminum Production Source Category* (Docket item EPA–HQ–OAR–2010–0544–0152). The typical controls used to minimize emissions at secondary aluminum facilities include fabric filters for control of PM from aluminum scrap shredders; afterburners for control of THC and D/F from thermal chip dryers; afterburners plus lime-injected fabric filters for control of PM, HCl, THC and D/F from scrap dryers/delacquering kilns/decoating kilns; afterburners for control of D/F from sweat furnaces; fabric filters for control of PM from dross-only furnaces and rotary dross coolers; lime-injected fabric filters for control of PM and HCl from in-line fluxers; and lime-injected fabric filters for control of PM, HCl and D/F from group 1 furnaces. In our review of technology, we determined that there have been some developments in practices, processes or control technologies, but we did not identify any of the developments as cost-effective. We stated in the 2012 proposal that the technology review did not warrant any amendments to Subpart RRR.

Following the 2012 proposal, no public comments were received to alter the conclusions of our technology review for the Secondary Aluminum Production source category. In the 2014 supplemental proposal, we proposed that the technology review findings from the 2012 proposal were still valid

and that the EPA was not aware of any changes in technology development since the 2012 proposal. See *Supplemental Proposal Technology Review for the Secondary Aluminum Production Source Category* and *Supplemental Proposal Technical Support Document for the Secondary Aluminum Production Source Category,* both available in the docket for this rulemaking. Based on our findings, no rule amendments based on the technology review were proposed.

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

Following the 2014 supplemental proposal, we received no comments and identified no information to alter our findings and conclusions in the technology review for the Secondary Aluminum Production source category. We did, however, update certain information on capture efficiency and costs. Updated information can be found in *Technical Support Document for the Secondary Aluminum Production Source Category Final Rule,* which is available in the docket for this rulemaking.

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

Comment: In a comment on the supplemental proposal, commenter 0301 stated that this source category is listed for regulation under 42 U.S.C. 7412(c)(6) as a result of its dioxin/furan emissions and that EPA has proposed to rely on the Secondary Aluminum standards to meet its section 7412(c)(6) responsibility, in part, for dioxin {Commenter's footnote: EPA, Completion of Requirement to Promulgate Emissions Standards, 79 FR 74,656, 74,664 tbl.1 (Dec. 16, 2014)}. The commenter stated that in this rulemaking, EPA has proposed not to update these emission standards to strengthen protection from dioxins/furans, even though it recognizes that developments in practices, processes, and control technologies have occurred that could reduce HAP emissions, such as activated carbon injection. The commenter stated that as explained in their 2012 comments on primary aluminum, when there are ''developments'' under section 7412(d)(6), EPA must promulgate revised standards. The commenter stated that revised emission standards—like any other section 7412(d) standards—must satisfy the floor and beyond-the-floor requirements of section 7412(d)(2)–(3), which state that they apply explicitly to ''emissions standards promulgated under this subsection,'' *i.e.*, under section 7412(d). The commenter stated that EPA must set revised standards that are at least as stringent as the emission limitation achieved by the relevant best-performing sources under section 7412(d)(3), and must assure the maximum achievable degree of emission reduction at the beyond-the-floor stage, as required by section 7412(d)(2).

Response: The original MACT standards for dioxins/furans for the secondary aluminum industry helped to satisfy the EPA's obligations under 42 U.S.C. 7412(c)(6), and the subsequent technology reviews for the source category has no bearing on our 112(c)(6) finding.

The commenter is incorrect in stating that there have been developments in practices, processes, and control technologies that would warrant revisions to the standards. As we stated in the preamble to the supplemental proposal (79 FR at 72901), there have been no developments in technology in this industry that warrant any changes to subpart RRR. The commenter's identification of activated carbon as a new control technology for this industry is also not correct as it has been available to the industry since before the 2000 final rule. Furthermore, as part of the technology review contained in the 2014 supplemental proposal (see 79 FR at 72901), we performed an analysis to evaluate lowering the D/F emissions limit from 15 to 10 μg TEQ/Mg for group 1 furnaces processing other than clean charge at all facilities. The analysis performed for the supplemental proposal assumed that furnaces above 10 μg TEQ/mg added activated carbon injection to achieve exactly the 10 ug TEQ/Mg limit. That analysis has been updated and assumes that all furnaces with emissions above 10 μg TEQ/Mg that add activated carbon injection achieve an 85-percent reduction in D/F emissions. The updated analysis is available in *Technical Support Document for the Secondary Aluminum Production Source Category Final Rule,* which is available in the docket for this rulemaking.

We disagree with the comments suggesting that the EPA must recalculate MACT floors and conduct beyond-the floor analyses under CAA section 112(d)(2)–(3) as part of the section 112(d)(6) review. As explained in a prior RTR rulemaking, the EPA does not read 112(d)(6) as requiring a reanalysis or recalculation of MACT floors. See National Emission Standards for Coke Oven Batteries (70 FR 19998–19999, April 15, 2005). We read section 112(d)(6) as providing the EPA with substantial latitude in weighing a variety of factors and arriving at an appropriate balance in considering revisions to standards promulgated under section 112(d)(2) & (3). Nothing in section 112(d)(6) expressly or implicitly requires that EPA recalculate the MACT floor as part of the section 112(d)(6) review. This position has been upheld by the court. *NRDC* v. *EPA*, 529 F.3d 1077, 1084 (D.C. Cir. 2008). We disagree with the commenters that the court's decision hinged on the fact that for the rulemaking at issue we had not identified any developments in practices, processes and control technologies under CAA section 112(d)(6). Rather, the court first states ''[w]e do not think the words 'review and revise as necessary' can be construed reasonably as imposing'' an obligation to completely recalculate maximum achievable control technology. *Id.*

In another comment on the supplemental proposal, one commenter stated that they concur with the Agency's determination that there have been no new developments in practices, processes or control technologies that are applicable to the secondary aluminum production source category that would warrant revisions to the NESHAP.

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

As discussed above and in the 2012 and 2014 proposals, we determined that there have been some developments in practices, processes or control technologies, but we concluded that the technology developments did not warrant any changes to Subpart RRR.

C. Testing of Group 1 Furnaces That Do Not Have Add-On Pollution Control Devices

1. What did we propose related to testing of uncontrolled group 1 furnaces?

In the 2012 proposal, to clarify how furnaces not equipped with an add-on air pollution control device and associated capture and collection system are to be tested for compliance, we proposed compliance alternatives addressing capture and collection of emissions for uncontrolled furnaces during performance testing. Specifically, we proposed that an owner or operator with an uncontrolled furnace could either temporarily install hooding that meets ACGIH guidelines for the duration of the testing or, for an existing uncontrolled furnace, assume 67-percent capture efficiency for furnace exhaust (*i.e.,* multiply measured

emissions by 1.5 to account for the uncollected emissions) without installing temporary hooding. As proposed, if the source uses the 67-percent capture efficiency assumption but fails to demonstrate compliance with the emission standard, the source would have to retest using ACGIH hooding or may petition the appropriate authority (permitting authority for major sources or the Administrator for area sources) that such hoods are impractical for the source and propose alternative testing procedures that will minimize unmeasured emissions. We proposed that the retesting must occur within 90 days.

Based on comments received on the 2012 proposal and our consideration of specific testing scenarios and types of uncontrolled furnaces, we proposed revised requirements for the testing of uncontrolled furnaces in the 2014 supplemental proposal. We proposed that if a source uses the 67-percent capture efficiency assumption but fails to demonstrate compliance, then they must retest using ACGIH hooding within 180 days, or the source may petition the appropriate authority within 180 days that such hoods are impractical and propose alternative testing procedures that will minimize unmeasured emissions. In the supplemental proposal, we also proposed conditions that would be considered impractical to install temporary ACGIH hooding and alternative procedures to minimize unmeasured emissions during testing.

Based on comments received on the 2012 proposal, the 2014 supplemental proposal also contained a provision to exclude existing round top furnaces from the proposed requirement to install temporary ACGIH hooding or to use a 67-percent capture efficiency assumption, as well as the proposed option to submit a petition of impracticality. Instead, we proposed that round top furnaces must be operated to minimize unmeasured emissions during testing.

In response to commenters' requests, we proposed example procedures to minimize unmeasured emissions during testing and amendments to clarify in what circumstances installation of temporary capture hoods for testing would be considered impractical.

2. What changed since proposal related to testing of uncontrolled group 1 furnaces?

Based on our consideration of comments and additional information received following the 2014 supplemental proposal, the following changes have been made in the final rule:

- If a facility owner or operator knows in advance that installing ACGIH hoods for testing is not practical, the facility owner or operator may petition the appropriate authority at least 180 days in advance for approval of plans to use alternative testing procedures that will minimize unmeasured emissions during testing.
- Reconstructed round top furnaces are exempt from the testing requirements in 40 CFR 63.1512(e)(4)(i) and (ii), and (iii).
- Additional methods of minimizing unmeasured emissions during testing of uncontrolled group 1 furnaces are added to 40 CFR 63.1512(e)(7) including the use of one or more fans positioned to direct air flow into an open furnace door, and the use of a smaller but representative charge added to the furnace at one time and conducting the test without additional charge.
- We have revised the capture efficiency assumption to 80 percent.

3. What key comments did we receive related to testing of uncontrolled group 1 furnaces?

Comment: One commenter stated that the EPA should not impose a requirement for group 1 furnaces without add-on air pollution control devices (APCD) to construct hoods for performance tests or be subject to a 33-percent reduction in allowed emissions. The commenter asserted that the EPA improperly characterizes this burdensome proposed requirement as a revision to the NESHAP to reportedly ''correct and clarify provisions in the rule.''

One commenter stated that the EPA has provided no information to demonstrate that the proposed requirement for uncontrolled group 1 furnaces is warranted or is consistent with requirements for developing NESHAP. The commenter is concerned that the only support for the proposed hooding requirement that the EPA has provided in the docket is a summary of two stack tests conducted at a single facility. The commenter states that these tests show a large degree of variability between the two tests and for different chemical parameters within each test. The commenter argued that the EPA has provided no information to demonstrate that these tests are indicative of operations throughout the Secondary Aluminum Production source category.

According to the commenter, the information that the EPA provided in the Technical Support Document indicates that the EPA may not have analyzed an appropriate operation to establish regulatory requirements. The commenter observed that if, as indicated in the Technical Support Document, the canopy hood was sampled for over 3 hours because there were emissions to be captured by it, the charge door must have been open for more than 3 hours during the melt cycle. The commenter stated that this scenario does not represent a conventional melting operation.

The commenter presented further concerns that the Technical Support Document states that the test cycle time in the September 5, 2007, test report ''could be a mistake'' and that the testing reported on September 5, 2007, may be ''flawed.'' The commenter noted a wide variation of capture efficiencies for D/F and questioned the EPA's proposal to apply 67-percent capture efficiency across all parameters and all facilities. The commenter claimed that it is unreasonable to apply capture efficiency based on PM or HCl to area sources when area sources are regulated only for D/F.

The commenter stated that the EPA placed the test reports discussed in the RTI Technical Support Document in the docket a month after the proposed rule was published in the **Federal Register**, which reduced the time reviewers had for comment. The commenter had the following concerns about the test reports:

- There is not sufficient information to understand how the furnaces are configured or operated, including how the hood was constructed or placed, and when or for how long the door(s) were left open;
- The hood draft volumes were large compared to furnace stack gas flow volumes, and the capture measured during the tests may not be a good measure of fugitive emissions that would occur in the absence of an induced draft hood;
- The stack temperatures also appear to be low, possibly due to dilution air being drawn into the stack duct prior to the sampling point, which could mean that actual combustion gas flowing from the furnace are much lower than reported at the stack, and the ratio of hood flow volume is much higher than that calculated in the Technical Support Document;
- No production numbers are provided so it is not possible to determine if the furnaces were operating in compliance with the NESHAP requirements; and
- The EPA has provided no indication that they attempted to determine the representativeness of the tests.

One commenter stated that fugitive emissions are minor from a well operated group 1 furnace without add-on controls, as door openings and top removals are kept at a minimum to conserve energy and burners are generally kept at reduced firing rates when furnaces are opened. The commenter stated that the 67-percent capture assumption that the EPA drew does not seem reasonable based on the commenter's observations.

The commenter emphasized that emissions from round top furnaces are negligible during periods when the top is off and burners are on low fire. The commenter stated that these furnaces would be placed at a competitive disadvantage by reducing the allowable emission by 33 percent. Further, the commenter noted that new round top furnaces are not allowed the 33-percent emission limit reduction in the proposed rule, so operators installing new round top furnaces would be forced to petition on a case-by-case basis to demonstrate impracticability. The commenter recommended that if the EPA finalizes this provision, round top furnaces should be categorically exempt from any hooding requirements because it is impractical to install hoods and because the EPA should not burden state and local agencies with the need to make case-by-case determinations when they can be categorically exempt.

In a comment on the supplemental proposal, one commenter stated that the EPA offers no explanation for limiting the exemption to install ACGIH-compliant hoods for testing to existing round top furnaces only. The commenter stated that they own and operate several existing and new source round top furnaces for which the physical configuration and operation is very similar. The commenter stated that they will construct new or reconstruct existing round top furnaces in the future and that it would be impracticable to construct hoods of any type on any of these furnaces regardless of whether they are existing, new, or reconstructed sources. The commenter recommended that the EPA include new and reconstructed furnaces in its hooding exemption.

In a comment on the supplemental proposal, one commenter stated that, for a variety of design, technical, operational, and safety reasons, it is impractical to install temporary hooding on round top furnaces for performance testing and agreed with our proposed exemption from the performance test hooding requirements for existing round top furnaces. The commenter disagreed, however, with our not proposing an exemption for ''new or reconstructed'' sources (including round top furnaces), asserting that the same fundamental design factors that prohibit installation of temporary hooding on existing round top furnaces also prevent its installation on new round top furnaces. The commenter requested that the word ''existing'' be removed from the round top furnace exemption language proposed in 40 CFR 63.1512(e)(4)(iii) and that the words ''or reconstructed non-round top'' be added to (5) such that it reads

''(5) When testing a new or reconstructed, non-round top uncontrolled furnace the owner or operator must . . .''

One commenter maintained that allowing facilities to petition permitting authorities that such hoods are impractical is not an acceptable alternative to the proposed rule and suggested that the EPA allow site-specific procedures in OM&M plans for group 1 uncontrolled furnaces to minimize fugitive emissions.

One commenter asserted that the proposed ACGIH hooding requirement ignores the consideration that the EPA made for fugitive emissions in the original MACT floor determination and implements requirements for ACGIH hooding that go beyond the floor. The commenter stated that, in the 2000 Secondary [Aluminum] MACT rule, performance testing of controlled sources was conducted to define the MACT floor. Although some fugitive emissions were visible near capture hoods, the EPA did not specify a numerical capture efficiency requirement, visible emissions limit, or specific limits or criteria for capture systems. Instead, the EPA included a provision to address hooding systems to capture and collect emissions by including guidelines published in Chapters 3 and 5 of ACGIH *Industrial Ventilation: A Manual of Recommended Practice*, which is incorporated into the rule by reference. The commenter stated that owners/operators of sources with existing add-on control systems have been challenged with regard to the capture/collection system design guidelines in the ACGIH manual, and, according to the commenter, there have been instances when there has been a misuse of the ACGIH Industrial Ventilation Manual. The commenter asserted that the EPA and some permitting agencies are interpreting the manual and incorporating portions of various charts, tables and text as regulatory requirements. The commenter stated that the authors of the ACGIH Industrial Ventilation Manual did not intend, and specifically state in the Forward of the manual that ''The manual is not intended, to be used as law, but rather as a guide.''

One commenter contended that in the original MACT proposal and rulemaking, the EPA provided no supporting data to demonstrate that the MACT floor technology control systems tested for each Secondary Aluminum Production source category is actually capable of meeting the capture/collection system design requirements in the ACGIH manual. The commenter asserted that the EPA and some permit authorities during implementation of the rule, without supporting documentation, imposed specific capture/collection system design requirements on all existing add-on control systems that effectively exceed the MACT floor determinations. The commenter further asserted that the EPA did not follow the regulatory procedures for going ''above the floor'' during the rulemaking process in imposing more stringent hooding requirements.

In a comment on the supplemental proposal, one commenter stated that, if the EPA retains the requirement that uncontrolled furnaces conduct performance testing using ACGIH-compliant hooding, the current emission limits for group 1 uncontrolled furnaces should be reevaluated. The commenter stated that the supplemental proposal sets new requirements for uncontrolled furnaces that go beyond the existing MACT floor and was based upon a 33-percent reduction developed from limited data. The commenter requested that the EPA collect more emissions data from uncontrolled furnaces tested with ACGIH capture hoods and make new MACT floor determinations and set new numerical emission limits that properly account for the higher total emissions caused by the collection of fugitive emissions collected by the ACGIH-compliant hoods.

Several commenters maintained that the EPA is basing the proposed ACGIH hooding requirement on a limited, unrepresentative, and flawed dataset.

One commenter expressed concern that the dataset on which the EPA based their proposed action was made available only after publication of the proposal. The commenter stated that due to the limited information available to the industry, no additional testing has been performed to assess the impact of the proposed action, or its economic or engineering feasibility.

Two commenters observed that the EPA has erroneously based the 67-percent hooding assumption on very limited test data from two furnaces operating with forced-draft fans, a scenario that is atypical of uncontrolled

furnaces, which are normally operated under natural draft. The commenter believes that the ''hooding efficiency'' measured during these tests is not representative because of the extremely high design flow rate of the capture hoods. The commenters maintained that exhaust flow at the hood was three times the stack exhaust flow rate, causing furnace emissions to be drawn out of the furnace door rather than allowing these emissions to exhaust through the stack.

One commenter cited an RTI memorandum to Rochelle Boyd, Environmental Engineer at the EPA, regarding the testing period reported for September 5, 2007, as a basis for the claim that errors were made during data collection, and that the EPA may be basing their decision and approach to regulating fugitive emissions on one dataset. The commenter emphasized that there are many furnace configurations that are used in the industry, so the EPA's one limited dataset cannot be representative of the entire industry. The commenter provided a copy of a table provided to the EPA by the commenter on December 21, 2011, outlining the inherent difference between several major furnace types.

One commenter stated that this proposal, in regard to installing hooding that meets ACGIH guidelines, is inconsistent with the requirement for existing sources that the MACT floor must equal the average emissions limitations currently achieved by the best-performing 12 percent of sources in that source category if there are 30 or more existing sources or, if there are fewer than 30 existing sources, then the MACT floor must equal the average emissions limitation achieved by the best-performing five sources in the category.

In a comment on the supplemental proposal, one commenter stated that they are concerned that the hooding and capture efficiency provisions in the 2014 supplemental proposal are unnecessary and actually reflect ''beyond the floor'' provisions for the installation of specific capture/collection systems that are not justified by the MACT floor determination calculations and evaluations.

One commenter stated that given the lack of evidence supporting these provisions, the commenter believes 40 CFR 63.1512 should be eliminated from the final rule.

Several commenters stated that ACGIH-compliant hoods are impossible to install on many group 1 uncontrolled furnaces due to the engineering limitations and considerations of many furnace installations such as size, type and location of the furnace. One commenter provided three examples of existing furnace installations that are unable to meet the requirements for fugitive emissions testing.

One commenter discussed round top furnace operations and how normal operations would not allow hooding for fugitive emissions.

One commenter stated that installation of temporary hooding on round top charge melters of the type the commenter has at its plant located in Lewisport, Kentucky, is not possible, and due to installed furnace design it is not possible to install temporary hoods on some reverberatory furnaces. The commenter included as attachments background information about the Lewisport testing.

One commenter stated that for group 1 uncontrolled furnaces, the proposed 33-percent emission reduction is a mandatory reduction for some operations, and also eliminates future operating flexibility for operations that are currently operating near the proposed 67-percent emission level. According to the commenter, the margin between operating levels and actual limits represents a margin of safety for furnaces that experience normal variations to be in continuous compliance.

The commenter maintained that the EPA proposed the 33-percent reduction in emissions without proof or justification that there are in fact fugitive emissions being released at or near these levels or for durations seen in the limited data the EPA provides. The commenter recommended that the EPA promulgate a rule that maintains a level playing field for the companies affected by the rule.

Two commenters recommended that the EPA allow the option to apply the assumed 67-percent capture efficiency for new furnaces to avoid the added cost of installing temporary hooding where a furnace can be operated in a manner that meets the 67-percent emission limit by changing the proposed requirement in 40 CFR 63.1512. The commenters argued that the proposed approach essentially forces the installation of a costly hood for new furnaces even when such hoods are not needed due to good pollution prevention practice and the resulting low HAP emission rates. The commenters opposed the HAP emission rate adjustment for new uncontrolled furnaces in instances where ACGIH hooding specifications are not possible, as the EPA proposed in 40 CFR 63.1512(e)(4)(ii), and asked that it be removed.

In a comment on the supplemental proposal, one commenter stated that in the original 40 CFR 63.1500, Applicability, and 40 CFR 63.1501, Dates, there are references to equipment that is ''new'' and equipment that is ''existing'' depending on installation date. The commenter suggested that EPA revise 40 CFR 63.1512(e)(4) to read as follows:

''When testing an existing or new uncontrolled furnace, . . .''

One commenter stated that issues addressed in 40 CFR 63.1512(e)(4)(ii), in terms of assuming a 67-percent capture efficiency for the furnace exhaust, were previously covered in the stack testing protocols that are part of the commenter's Consent Decree (included as an attachment). The commenter requested that the EPA provide clarification that those protocols are not impacted by this rule making and remain fully acceptable.

Response: As discussed in the preambles and technical support documents to the 2012 proposal and 2014 supplementary proposal, the existing performance testing requirements in Subpart RRR that apply to group 1 furnaces without add-on APCD do not include specific requirements relating to capture and collection of emissions during performance tests conducted to ensure compliance with applicable emission standards. During performance testing of these sources, emissions may escape without being accounted for (*i.e.*, captured, collected, and measured) in the emissions test. Thus, the performance tests done to ensure compliance may not provide an accurate measure of whether the furnace is, in fact, meeting the applicable emission standards.

The ACGIH guidelines (as defined in 40 CFR 63.1503) provide specifications for the proper design and installation of capture and collection systems to minimize unmeasured emissions and ensure that process emissions are being properly captured and conveyed to an air pollution control device, where one is in place, and also ensures that emissions testing results are representative of total emissions. The Subpart RRR standard as promulgated in 2000 includes a requirement that all controlled emission units include capture and collection systems designed consistent with the ACGIH guidelines. As stated in our response to comments in the 2000 Subpart RRR rule, a capture and collection system meeting ACGIH criteria is necessary for occupational safety, and for assuring compliance with the emission standards. See *Summary of Public Comments and Responses on*

Secondary Aluminum NESHAP, December 14, 1999, in the docket for this rulemaking.

The emission standards that apply to all group 1 furnaces were based on data from systems that effectively capture and contain emissions at the source (minimizing unmeasured emissions) and convey the emissions to the control device for destruction or removal. In addition, a capture and collection system meeting ACGIH guidelines with good hooding design will result in a lower volume of exhaust air to be treated, and, in many cases, a smaller, lower-cost control device. The EPA considered an ACGIH-compliant capture and collection system to be part of MACT floor technology for affected sources with add-on controls (see 64 FR 6960, February 11, 1999).

The subpart RRR rule generally applied the same emission standards to uncontrolled group 1 furnaces as it did to controlled group 1 furnaces and thereby allowed secondary aluminum facilities to continue to have uncontrolled group 1 furnaces so long as they met similar emission standards as controlled group 1 furnaces. The lack of clarity on the level of unmeasured emissions that may be emitted from an uncontrolled group 1 furnace during performance testing has led to confusion in rule implementation, as well as significant concerns about the accuracy and appropriateness of the compliance determination protocol.

Because performance tests for uncontrolled group 1 furnaces may not accurately measure whether the furnace is in compliance with the applicable emission standards, the EPA concluded that a testing protocol for uncontrolled group 1 furnaces that allows a potentially significant portion of HAP emissions to be unmeasured and unaccounted for in determining compliance with emission standards is inadequate.

A testing procedure for uncontrolled furnaces that permits an unknown degree of variance in the amount of emissions that may escape measurement during performance testing could call into question whether the rule is adequately ensures that the furnaces are meeting applicable emission standards. The commenters' suggest that a compliance demonstration that does not account for unmeasured emissions is a necessary result of the development of the Subpart RRR emission standards. The commenters are, in effect, questioning whether the existing standards for uncontrolled group 1 furnaces are consistent with the MACT floor analysis, which was primarily based on the performance of controlled furnaces. Moreover, if the level of unmeasured emissions during performance testing cannot be quantified for purposes of determining compliance with Subpart RRR emission standards, there could be an issue regarding the extent to which such emissions are subject to any MACT standard.

We note that one commenter stated that if EPA finalizes the testing requirements for uncontrolled furnaces, the EPA should reevaluate group 1 uncontrolled furnace emission limits. The commenter suggested that EPA collect emissions test data from uncontrolled furnaces using ACGIH hooding, make new MACT floor determinations, and set new numerical MACT emission limits. The EPA believes requiring additional furnace testing and conducting further MACT rulemaking is not necessary to address unmeasured emissions during performance testing of uncontrolled furnaces. The EPA believes that the actions taken in this rulemaking are sufficient to address the issue.

Further, the EPA is not mandating ACGIH hooding during performance testing in all instances, but rather providing alternative compliance options for facilities to account for unmeasured emissions from uncontrolled group 1 furnaces during performance testing. Specifically, for existing uncontrolled furnaces we are requiring either the installation of temporary ACGIH hooding or an assumption of a specified capture efficiency for furnace exhaust. Requirements for new uncontrolled furnaces are discussed below. Although we proposed using a 67-percent capture efficiency in lieu of the installation of temporary ACGIH hooding, in light of comments, we have re-examined the testing data on which the proposed 67-percent capture efficiency assumption was based, and revised the assumed capture efficiency to 80 percent. This 80-percent capture efficiency is based on the highest average capture of the three HAP tested. See *Draft Technical Support Document for the Secondary Aluminum Production Source Category, Supplemental Proposal Technical Support Document for the Secondary Aluminum Production Source Category,* and *Technical Support Document for the Secondary Aluminum Production Source Category Final Rule,* all available in this rulemaking docket. We believe this revised percent capture efficiency assumption of 80 percent provides the best estimate of the capture efficiency of uncontrolled furnaces for the several pollutants being measured, based on the limited data available. Under these provisions, if the source fails to demonstrate compliance using the 80-percent capture efficiency assumption, the source must retest using hooding that meets ACGIH guidelines or petition the appropriate authority that such hoods are impractical and propose testing procedures that will minimize unmeasured emissions. The retesting or petition must occur within 180 days. The commenters have not demonstrated that these alternatives are inappropriate or inconsistent with the 2000 MACT floor.

Applying the same emission limits to uncontrolled group 1 furnaces as controlled group 1 furnaces necessarily depends on emissions from uncontrolled group 1 furnaces being adequately captured and collected or being reasonably accounted for when a performance test is conducted. The MACT floor analysis, and the emission standards established by that analysis, for all group 1 furnaces (including controlled and uncontrolled furnaces) incorporated well-designed and maintained capture and collection systems, such as those prescribed by ACGIH guidelines. The rule revisions being promulgated in this action address this need by allowing facilities to choose from the compliance options described above.

In addition, CAA section 63.7(d)(5) of the General Provisions, which applies to this rule, requires that the owner or operator provide the facilities necessary for safe and adequate testing of a source. Adequate testing includes the responsibility to either provide a means of directing emissions to the sampling train, or to measure the capture efficiency of the equipment used to direct the emissions to the sampling train so that the overall emissions from the source can be determined. The rule changes described above assist in implementing this requirement for uncontrolled group 1 furnaces.

In response to the commenter's concerns regarding the test results cited by the EPA, the EPA obtained additional information from personnel at the facility at which the tests were performed. This information, which is available in the docket, indicates:

- Although sampling was conducted for approximately 3 hours using the canopy hoods at the two furnaces, the charging doors were only open for approximately 15 minutes on one furnace, and approximately 30 minutes on the other furnace;
- The testing times at the furnace stacks for both furnaces were equal to the entire cycle time for the furnace (so there was no flaw in the testing periods, such that the furnace stack emissions

were not measured over the entire cycle);

- There was no introduction of dilution air between the furnace and the furnace stack sampling point; and
- The furnaces were operating in compliance with the NESHAP requirements.

Therefore, although the test data are limited, we have identified no flaws in the testing procedures that render the results invalid, and we believe it is reasonable to rely on the test data to support our rule revision. In addition, it is undisputed that the test data are from a Subpart RRR-affected facility, and the commenter did not provide specific reasons to support its assertion that the tested furnaces are not ''indicative'' of the source category nor did commenters submit testing data to contradict, alter, or draw into question the EPA's conclusions. The commenter also did not explain why, or at what level, different capture efficiencies should be used based on differences in pollutants. We are certain that at least some unmeasured emissions escape from all uncontrolled group 1 furnaces during testing. Therefore, the only question is what fraction of the total emissions is directed to the furnace stack for measurement, and what fraction escapes as emissions that are not measured. Our estimate, based on the limited dataset, is that 80 percent of emissions at uncontrolled furnaces are captured and directed to the stack for measurement, while 20 percent are emitted as unmeasured emissions. The revised testing procedures for uncontrolled furnaces were proposed in February 2012, with one comment period in 2012 and a second comment period after the 2014 supplemental proposal, giving commenters ample time to collect and submit to EPA additional emissions test data, although none were submitted. In the absence of additional data, we relied on the only data available, although, upon further analysis of the data, we revised the capture efficiency from 67 percent to 80 percent.

As noted by commenters, and supported by information they provided, the tops of round top furnaces must be removed for charging by cranes operating above the furnaces. Commenters stated that for a variety of design, technical, operational, and safety reasons, it was not feasible to install temporary hooding on existing round top furnaces. Based on our review of the information submitted by the commenters, we agree that ACGIH-compliant hoods are not possible to install on existing round top furnaces because the top of the furnace must be removed by a crane operating from above the furnace. We also agree that state and local agencies should not be burdened with the need for case-by-case impracticability determinations for existing round top furnaces. Consequently, we are excluding existing round top furnaces from the requirement either to install temporary ACGIH hooding or to use an 80-percent capture efficiency assumption as well as the requirement for a petition of impracticality, but instead round top furnaces must be operated to minimize unmeasured emissions during testing.

The commenters have not provided documentation to support an exclusion for other types of furnaces, such as box reverberatory furnaces and box reverberatory furnaces with a side door. For these furnaces, issues related to hooding during performance tests may or may not arise depending on the specific site installation, including factors such as the presence of surrounding equipment and other physical obstructions, limited access and overhead cranes that may make it impractical to install hooding. Therefore, the exclusion in the final rule applies only to existing round top furnaces.

We note that, as discussed above, the final rule also provides flexibility for furnaces other than round top furnaces. Where an ACGIH-compliant hood cannot be installed on a furnace for testing and an 80-percent capture efficiency is not used, the source can petition the appropriate authority that temporary ACGIH hooding is impractical for the source and propose alternative testing procedures that will minimize unmeasured emissions. In some instances, furnace emissions can be captured and measured without ACGIH hooding. For example, the building may be operated as an enclosure, and emissions from the building can be measured (*e.g.,* by installing a temporary fan and associated ductwork or a stack, and measuring emissions in that ductwork or stack). In addition, there is an alternate performance testing methods provision available in 63.1511(d).

We disagree that new furnaces should be allowed the option to assume 80 percent of emissions are directed to the stack for measurement. We are allowing existing uncontrolled group 1 furnaces to use the 80-percent capture efficiency assumption, since the physical limitations of an existing furnace are already established. However, this is not the case for a new furnace; for a new furnace, adequate testing of the source can be achieved through the design of the furnace. This need not involve installation of a hood, since, for example, the building, or portion of the building in which the new furnace is located, could be used as an enclosure for the purpose of testing. As we stated earlier, adequate testing includes the responsibility to either provide a means of directing emissions to the sampling train, or to measure the capture efficiency of the equipment used to direct the emissions to the sampling train so that the overall emissions from the source can be determined.

As discussed above, we have different requirements for new uncontrolled furnaces, including new uncontrolled round top furnaces, than for existing uncontrolled furnaces because we have concluded that proper conditions for testing are readily achieved in the design of a new furnace. However, in the specific case of reconstructed round top furnaces, we agree that they are likely to have the same physical constraints as existing round top furnaces that make it difficult or impossible to construct the temporary hooding needed for emissions testing. Therefore, the final rule provides reconstructed round top furnaces the same exemption from the provisions requiring the installation of temporary ACGIH hooding or the assumption of 80-percent capture efficiency as allowed for existing round top furnaces.

Regarding the commenter's reference to the conditions of their Consent Decree, the decree at paragraph 122 states clearly that each company is responsible for achieving and maintaining complete compliance with all applicable federal laws and regulations, and compliance with the Consent Decree does not necessarily mean compliance with the Clean Air Act or implementing regulations. Further, the Consent Decree does not limit the EPA's authority to revise Subpart RRR. Also note that the compliance date for the rule revisions concerning testing of uncontrolled furnaces is 2 years after promulgation. While it is not necessary to review the specific protocols of the Consent Decree for purposes of this rulemaking, the commenter can follow up with their EPA Regional Office regarding any concerns.

Comment: In a comment on the supplemental proposal, one commenter stated it should not be a prerequisite that facilities or emission sources must first conduct a failed compliance test using the 67-percent capture efficiency assumption prior to petitioning permitting authorities that ACGIH equivalent hooding is impractical under the provisions of paragraph (e)(6). According to the commenter, some facilities know upfront that installing a

capture hood is impractical and that they cannot comply with a stack test assuming a 67-percent capture efficiency. The commenter recommended that the final rule provide owners and operators a third option to petition permitting authorities (prior to performance testing) that installation of hooding is impractical; this alternative would avoid costs associated with multiple performance tests, labor and administrative burdens and potential enforcement liability that would be associated a failed performance test.

A commenter on the supplemental proposal stated that many of the hooding provisions are unworkable in actual practice, and the commenter therefore supports the petition process proposed for alternate capture/collection systems, coupled with testing procedures designed to minimize fugitive emissions. The commenter stated that it is inefficient and a significant waste of resources to require initial testing under the assumption of a 67-percent capture efficiency for a facility where installing an ACGIH-compliant hood is impractical and the facility knows or expects that it cannot comply using the 67-percent capture efficiency assumption. The commenter suggests it would be more efficient to allow facilities the option to submit a petition regarding the impracticality of hooding coupled with proposed testing procedures that will minimize fugitive emissions during the testing before the next required performance test occurs rather than after; this will minimize the likelihood of retesting and result in significant monetary, labor and efficiency savings.

The commenter stated they assume that, in the event of testing/retesting following the approval of a petition demonstrating the impracticability of hooding requirements, the 67-percent capture efficiency provisions would not be applicable to the results of the testing/retesting. However, because it is not specifically stated, the commenter seeks a clear statement to that effect in the final rule.

The commenter requested that the language in 40 CFR 63.1512(e)(4) be revised as follows:

''When testing an existing uncontrolled furnace, the owner or operator must comply with the requirements of either paragraphs (e)(4)(i), (ii), (iii) or (iv) of this section at or prior to the next required performance test required by 63.1511(e).

(i) Install hooding that meets ACGIH Guidelines, or

(ii) At least 180 days prior to testing, petition the permitting authority for major sources, or the Administrator for area sources, that such hoods are impractical under the provisions of paragraph (e)(6) of this section and propose testing procedures that will minimize fugitive emissions during the performance test according to the paragraph (e)(7) of this section, or

(iii) Assume a 67-percent capture efficiency for the furnace exhaust (*i.e.,* multiply emissions measured at the furnace exhaust outlet by 1.5). If the source fails to demonstrate compliance using the 67-percent capture efficiency assumption, the owner or operator must re-test with a hood that meets the ACGIH Guidelines within 180 days, or petition the permitting authority for major sources, or the Administrator for area sources, within 180 days that such hoods are impractical under the provisions of paragraph (e)(6) of this section and propose testing procedures that will minimize fugitive emissions during the performance test according to paragraph (e)(7) of this section.

(iv) The 67-percent capture efficiency assumption is not applicable in the event of testing conducted under an approved petition submitted pursuant to (ii) or (iii) above.''

The commenter stated that making these changes will also require that the existing proposed paragraph (iii) be re-designated as (v).

Response: Based on the comments received, the EPA reevaluated the proposed requirements for testing uncontrolled furnaces. Based on our analysis of available data (described in the *Technical Support Document for the Secondary Aluminum Production Source Category Final Rule,* which is available in the docket), we believe that the vast majority of furnaces will be able to comply based on the 80 percent assumption. However, we agree that there might be cases where a facility owner or operator may know in advance that they cannot comply based on the 80-percent capture efficiency assumption and that installing ACGIH hoods for testing is not practical, so to require them to conduct tests that they know in advance will fail is unreasonable and unnecessary. Therefore, the final rule provides an alternative for such cases whereby the facility owner or operator can petition their permitting authority at least 180 days in advance that ACGIH hooding is impractical and request approval of alternative testing procedures including measures they will take that will minimize unmeasured emissions during testing. The EPA has also clarified in the final rule that in testing or retesting following approval of a petition demonstrating impracticability of temporary ACGIH hooding, the 80-percent capture efficiency assumption does not apply to the results of the testing or retesting.

Comment: In a comment on the supplemental proposal, one commenter requested that instead of the requirement for uncontrolled furnaces to conduct performance testing using ACGIH hooding, the EPA should allow, as they do for round top furnaces, the use of alternative procedures for the minimization of fugitive emissions during performance testing for consistency and cost considerations. The commenter stated that allowing all uncontrolled furnaces to use the work practices for the minimization of fugitive emissions, rather than install ACGIH hooding, would achieve the same capture efficiency during the performance test as it would for round top furnaces. The commenter further stated that the installation and use of an ACGIH hood is not cost effective and would create unnecessary costs simply to comply with testing requirements. A commenter on the supplemental proposal stated that the EPA should delete the ACGIH capture hood requirements for uncontrolled furnace testing and instead specify work practice alternatives for minimizing fugitive emissions during testing.

Response: The commenters have not provided documentation to support an exclusion from ACGIH hooding and associated requirements for furnaces other than round top furnaces. Based on the limited information available to the EPA, we believe that, for these furnaces, issues related to hooding during performance tests may or may not arise depending on the specific site installation, including factors such as the presence of surrounding equipment and other physical obstructions, limited access, and overhead cranes that may make it impractical to install temporary hooding. Therefore, the exclusion in the final rule applies only to existing or reconstructed round top furnaces. As noted above, even if ACGIH-compliant hoods cannot be installed on a furnace, in some instances, furnace emissions can be captured and measured without ACGIH hooding. For example, the building may be able to be operated as an enclosure, and emissions from the building can be measured (*e.g.*, by installing a temporary fan and associated ductwork or a stack, and measuring emissions in that ductwork or stack) if there are no other furnaces or other significant sources in the building of the pollutant to be measured. In addition, an owner or operator of an existing uncontrolled group 1 furnace other than a round top furnace has the choice of assuming an

80-percent capture efficiency for the furnace exhaust, or, if the source does not wish or fails to demonstrate compliance using the 80-percent capture efficiency assumption, the owner or operator may petition the permitting authority that such temporary hoods are impractical.

Comment: Three commenters cited safety concerns regarding the feasibility of fugitive emissions testing for group 1 uncontrolled furnaces.

One commenter asserted that because of the broad spectrum of furnace designs and safe operating practices for the group 1 uncontrolled furnace category, it is impossible to fully characterize the potential impacts on operator safety from EPA's proposed action. The commenter observed that to conduct an EPA Method 5 test at a hood requires an operator to be present for the duration of the emissions test in a location that industry standard safe operating practices prohibit. The commenter asserted that this proposed requirement would violate the industry standard operation procedure of the vast majority of group 1 uncontrolled furnaces, which require the removal of the operator from unsafe locations during normal furnace operation. The commenter stated that group 1 uncontrolled furnaces fall into two broad categories, those designed for operator presence on the furnace structure and those that do not have any infrastructure for operator presence above the furnace.

One commenter stated that safe operation of furnaces that charge aluminum scrap only allows for operators to access the area above the furnace when the door is closed, and the cycle is in a steady state (*i.e.,* not immediately following scrap charging), entirely precluding the operator from entering during operation. The commenter emphasizes that the operation of the proposed testing apparatus, in accordance with EPA Methods 1 and 2, would violate industry best practices for the safe operation of remelt furnaces.

Response: We disagree that the Method 5 emissions tests must be conducted ''at a hood,'' and therefore have potential impacts on the safety of the testing equipment operators or furnace operators. The ductwork from the hood can lead to the same stack as the furnace. Therefore, fugitive emissions captured by the hood can be combined with emissions from the furnace, and testing can be conducted at the same stack location as the facility has historically tested. Furthermore, existing uncontrolled furnaces have the additional option of assuming an 80-percent capture efficiency and all uncontrolled furnaces may petition the appropriate authority that such hoods are impractical and propose testing procedures that will minimize unmeasured emissions during testing.

Comment: Three commenters asserted that design and installation costs for hooding are far higher when testing for group 1 uncontrolled furnaces than those provided by the EPA. One commenter estimated a cost of $120,000 to $500,000 per hood.

One commenter noted that because these hoods and ductwork would have to be retrofitted to existing equipment, there is little or no economy of scale.

Response: The commenters did not provide supporting calculations or a breakdown for their cost estimates. The EPA contacted the commenter that provided the higher estimated costs and requested additional information on their cost estimate. The commenter provided cost estimates for an installation of hooding that meets ACGIH guidelines on a Reverb Melter ($208,146) and a Tilting Holder ($238,012). The EPA used these cost estimates in a supplementary cost analysis to provide further information concerning the rule amendments being adopted in this final rule *Cost Estimate for Rule Changes to Secondary Aluminum NESHAP,* which is available in the docket for this action. Based on the commenter's estimates, the average capital cost for the two installations is approximately $223,000. The 2012 cost can be scaled to 2011 cost by applying the ratio of the Chemical Engineering Plant Cost Index for March 2011 (final—575.9) to March 2012 (preliminary—596.1), or a ratio of 0.966. Using this factor, the capital cost is estimated to be $215,400 per furnace. If this value is used in lieu of the original estimate (contained in supporting documentation for the proposed rule) of $76,000 for a single hood, all costs would increase by a factor of 2.83 (*i.e.,* $215,400 divided by $76,000). Assuming temporary hooding will be installed on 107 furnaces, the total capital cost using this value would therefore conservatively be estimated to be $17,300,000 (*i.e.,* $6,099,000 multiplied by 2.83). Note that the $6,099,000 cost estimate is based on an average cost per furnace of $57,000, based on the assumption that a hood for a second installation at a facility would cost half as much (*i.e.,* ($76,000 + $38,000)/2 = $57,000). Similarly, using these higher cost estimates per furnace, the total annualized cost for the source category would be conservatively estimated at $3.46 million per year, and the total annualized cost per furnace would be approximately $32,300 per year. Therefore, conservatively assuming 107 furnaces install temporary hooding, total estimated annualized costs would range from $1.2 million per year to $3.46 million per year or an average of $2.3 million per year. Total annualized cost per furnace would range from $11,000 per year to $32,300 per year, or an average of $21,650 per year. We believe that these total cost estimates are conservative (more likely to be overestimates rather than underestimates) because these costs are based on the assumption that all of the estimated uncontrolled furnaces will choose to install temporary hooding rather than use the other options provided in the rule for addressing unmeasured emissions during performance testing.

Comment: Two commenters, in response to the 2012 proposed rule, requested that the EPA revise proposed 40 CFR 63.1512(e)(4)(ii) to list example work practices that the Agency considers acceptable for minimizing furnace fugitive emissions during a performance test. The commenters stated that the list of examples would provide permitting authorities some basis for evaluating proposed work practices and approving test procedures.

In a comment on the supplemental proposal, one commenter stated that, with the approval of the applicable permitting authority, when testing an uncontrolled reverberatory furnace, they have used a test plan that includes positioning one or more fans to direct flow into a furnace when the door is opened in order to minimize fugitive emissions escaping the furnace door. The commenter recommended paragraph 63.1512(e)(7)(x) be added to read as follows:

''(x) Use of fans or other device to direct flow into a furnace when door is open.''

In a comment on the supplemental proposal, one commenter stated that most of the ''testing procedures'' presented in sections 63.1512(e)(7)(i) through (ix) of the proposed rule are reasonable suggestions for minimizing fugitive emissions. However, the commenter stated that, the installation of temporary baffles would have no practical effect on reducing fugitive emissions for the types of emission units regulated under this source category. The commenter stated that, additionally, increasing the exhaust rate will require additional fuels to be combusted and will cause an increase in dross production; both will result in particulate and HCl emission increases that would otherwise not be created. According to the commenter, the creation of additional dross will

produce a cascade of collateral environmental impacts: More dross must be processed, more dross processing HAP will be created, and there will be more residuals to be handled, transported and disposed.

In a comment on the supplemental proposal, one commenter stated that the language the EPA uses to introduce the procedures that can be used to minimize fugitive emissions in the preamble is better than that used in the original proposed rule at 63.1512(e)(7). The commenter stated that the preamble introduces alternatives for minimizing fugitive emissions with the words, ''[t]hese procedures may include, if practical, one or more of the following, but are not limited to . . . .'' The commenter stated that, in contrast, the proposed rule at 40 CFR 63.1512(e)(7) simply states, ''testing procedures that will minimize fugitive emissions may include, but are not limited to . . . .'' The commenter recommended that the EPA should include the phrase ''if practical, one or more of the following'' in the language of the rule at 40 CFR 63.1512(e)(7), because this construction makes clear that not every alternative to minimize fugitive emissions may be practical and therefore not all the listed alternatives are required.

In a comment on the supplemental proposal, one commenter stated that they have conducted testing of round top melting furnaces after development of a test plan, with the EPA's approval, as part of a Consent Decree and as approved by the applicable permitting authority. The commenter stated that this procedure involves removing the top once and placing a representative but lighter charge into the furnace and replacing the top. The commenter stated that the charge includes all materials normally charged into the furnace but a charge size of approximately 25 percent to 35 percent of normal; this procedure minimizes fugitive emissions from the furnace. The commenter stated that while they believe this procedure meets the intent of paragraph 63.1512(e)(7)(v), they request that the paragraph be revised as follows:

(v) ''In order to minimize time the furnace door or top is open, it is permissible to add a smaller but representative charge into the furnace at one time and conduct the test without additional charge.''

Response: In response to the commenters' requests, we have included in the final rule a list of example procedures for minimizing unmeasured emissions during testing. These procedures may include, if practical, but are not limited to, one or more of the following:

- Installing a hood that does not meet ACGIH guidelines;
- Using the building as an enclosure, and measuring emissions exhausted from the building if there are no other furnaces or other significant sources in the building of the pollutants to be measured;
- Installing temporary baffles on the sides or top of the furnace opening, if it is practical to do so where they will not interfere with material handling or with the furnace door opening and closing;
- Minimizing the time the furnace doors are open or the top is off;
- Delaying gaseous reactive fluxing until charging doors are closed and the top is on;
- Agitating or stirring molten metal as soon as practicable after salt flux addition and closing doors as soon as possible after solid fluxing operations, including mixing and dross removal;
- Keeping building doors and other openings closed to the greatest extent possible to minimize drafts that would divert emissions from being drawn into the furnace;
- Maintain burners on low-fire or pilot operation while the doors are open or the top is off;
- Use of fans or other device to direct flow into a furnace when door is open; or
- Removing the furnace cover once in order to add a smaller but representative charge and then replacing the cover.

We disagree that baffles would be ineffective in reducing unmeasured emissions in all cases and note that they are just one of several options that can be used, as appropriate, to reduce unmeasured emissions during testing of uncontrolled furnaces. One way that baffles can reduce unmeasured emissions is to keep the smoke puff that escapes the furnace when the scrap is first put in from leaving the area around the furnace. Therefore, some of the smoke can be pulled back into the furnace after the seconds-long initial puff of smoke. Baffles also tend to produce a higher-velocity corridor leading to the furnace face, also making it more likely that the puff of smoke that escapes the furnace during charging will subsequently get pulled back into the furnace. Furthermore, their use would be temporary only for the time that the furnace doors are open to accept a charge. As proposed, the final rule includes the use of baffles as one testing procedure that can be used to minimize unmeasured emissions but does not require that they be used.

We agree with the comment that increasing exhaust rate may tend to increase dross production, with a resultant increase in PM and HCl emissions. Therefore, even though increasing exhaust rate will improve capture, we are removing the example of raising flow rate from the list of methods to minimize fugitive emissions.

We disagree with the comment that 40 CFR 63.1512(e)(7) does not adequately introduce the procedures that can be used to minimize unmeasured emissions. We believe that the wording at 40 CFR 63.1512(e)(7) clearly conveys that any one of the listed procedures, or others that are not listed, may be used to minimize unmeasured emissions during testing. The regulatory wording does not require their use. Therefore, the final rule has not been revised as requested by the commenter.

We agree that, as the commenter recommended, using a smaller but representative charge, could reduce the amount of time that furnace doors are open, and could therefore reduce the amount of emissions that are not captured and measured during testing of uncontrolled furnaces. Because emission limits for group 1 furnaces are in units of mass of pollutant per unit of mass of feed, the mass of the charge by itself does not affect the validity of test results. The final rule includes the use of smaller but representative charges as another alternative to minimizing unmeasured emissions during testing of uncontrolled group 1 furnaces. If a single test condition is not expected to produce the highest level of emissions for all HAP, testing under two or more sets of conditions (for example high contamination at low feed/charge rate and low contamination at high feed/charge rate) may be required.

Comment: Two commenters on the 2012 proposal requested that the EPA extend the timeline proposed for retesting under 40 CFR 63.1512(e)(4)(ii) to 240 days. The commenter asserted that the requirement proposed in 40 CFR 63.1512(e)(4)(ii) to ''retest with a hood that meets ACGIH Guidelines within 90 days'' is not practicable. For the proposed provision to be workable, the commenter argued, the EPA needs to allow at least 240 days for retesting with an ACGIH hood if a source fails to demonstrate compliance using the 67-percent capture efficiency assumption.

Response: The EPA agrees with commenters that the 90-day period for retesting in the 2012 proposal was insufficient. Based on further review and comments received, in the supplemental proposal, the EPA proposed a 180-day period for the retesting provisions in section 63.1512(e)(4). We received no comments on the 2014 supplemental proposal objecting to the 180-day retesting

period. Therefore, instead of the initially proposed 90-day retesting period, we are adopting in the final rule a 180-day period for a source that fails to demonstrate compliance using the capture efficiency assumption either to: (1) Retest with an ACGIH-compliant hood; or (2) petition the permitting authority that such hoods are impractical for the furnace and propose testing procedures that will minimize unmeasured emissions during testing.

Comment: In a comment on the supplemental proposal regarding 40 CFR 63.1512(e)(4)(iii), one commenter stated that it is not clear if the EPA intends to exempt all round top furnaces in operation on the publication date of the proposal, or if round top furnaces that commenced construction or reconstruction after February 11, 1999, (new) are purposely being excluded. The commenter suggested the language be revised to the following:

''Existing and new round top furnaces are exempt . . . .''

Response: As proposed in the 2014 supplemental proposal, the final rule exempts existing round top furnaces from the testing requirements for uncontrolled furnaces in 40 CFR 63.1512(e)(4)(i), (ii), and (iii). In response to a comment on the supplemental proposal, we have expanded the exemption to also apply to reconstructed round top furnaces. The intent of the EPA is that existing and reconstructed round top furnaces that commenced construction or reconstruction on or before February 12, 2012, are exempt, and new round top furnaces that commence construction after February 12, 2012, are not exempt, from the testing requirements for uncontrolled furnaces in 40 CFR 63.1512(e)(4)(i), (ii), and (iii). Therefore, we are not adopting the revised language suggested by the commenter.

Comment: One commenter asked that the EPA clarify in 40 CFR 63.1512(e)(4)(ii) what constitutes ''impractical'' with respect to installing temporary capture hoods.

Response: In response to the commenter, 40 CFR 63.1512(e)(6) of the final rule clarifies in what circumstances installation of temporary capture hoods would be considered impractical.

Temporary capture hooding installation is considered impractical if:

- Building or equipment obstructions (for example, wall, ceiling, roof, structural beams, utilities, overhead crane, or other) are present such that the temporary hood cannot be located consistent with acceptable hood design and installation practices;
- Space limitations or work area constraints exist such that the temporary hood cannot be supported or located to prevent interference with normal furnace operations or avoid unsafe working conditions for the furnace operator; and/or
- Other obstructions and limitations subject to agreement of the permitting authority.

4. What is the rationale for our final approach for testing of uncontrolled group 1 furnaces?

As discussed above and in the 2012 and 2014 proposals, we are finalizing compliance alternatives addressing capture and collection of emissions for uncontrolled furnaces during performance testing. Owners and operators of uncontrolled furnaces have the options of installing temporary ACGIH-compliant hooding for testing or assuming that the capture efficiency of the furnace exhaust is 80 percent without installing hooding. Further options are provided if a source fails to comply using the 80-percent capture efficiency assumption or decides not to use the 80-percent assumption and instead petitions at least 180 days in advance that ACGIH hooding is impractical for the furnace and for approval of alternative testing procedures, including measures that will minimize unmeasured emissions during testing. The final rule exempts existing and reconstructed round top furnaces from these requirements due to the infeasibility of installing hooding. The final rule clarifies the circumstances under which the installation of temporary ACGIH hooding is considered impractical and specifies work practices that can be used to minimize unmeasured emissions during testing of uncontrolled furnaces.

D. Changing Furnace Classification

1. What did we propose regarding changing furnace classification?

In the 2012 proposal, we proposed to address an area of uncertainty under Subpart RRR by specifying in 40 CFR 63.1514 rule provisions expressly allowing changes in furnace classification, subject to procedural and testing requirements, operating requirements and recordkeeping requirements. We proposed a frequency limit of no more than one change in classification (and associated reversion) every six months, with an exception for planned control device maintenance activities requiring shutdown. We received comments on the 2012 proposal requesting additional or unlimited changes in furnace classification. Based on the information received, we reevaluated the appropriate limit on frequency of furnace classification changes. The EPA received from one commenter an inventory of the number of classification changes that occurred each year at a specific Subpart RRR furnace over a nearly 10-year period (available in the docket for this rulemaking). The highest number of furnace classification changes in one year, including both planned and unplanned changes, was nine.

Based on the comments and information received, we proposed in our 2014 supplemental proposal a revised limit on the frequency of changes in furnace classification of four in any 6-month period, with a provision allowing additional changes by petitioning the appropriate authority.

2. What changed since proposal regarding changing furnace classification?

Based on our consideration of the comments and additional information received following the 2012 proposal and the supplemental proposal, the following changes are incorporated into the final rule:

- Added a provision that if compliance has already been demonstrated for a given operating mode, performance testing is not required, provided the testing was in compliance with the provisions in 40 CFR 63.1511;
- Added clarification in §§ 63.1514(a)(2)(iii) and (4)(iii), (b)(2)(iii) (b)(4)(iii), and (c) on establishing the number of tap-to-tap cycles elapsed (or time elapsed for continuously operated units) during performance testing as a parameter to be met before changing to uncontrolled mode, and provisions for continuous operations;
- Removed the proposed requirement to complete one or more charge-to-tap cycles or 24 hours of operation prior to changing furnace operating mode in §§ 63.1514(2)(i) and (4)(i), (b)(2)(i), (b)(4)(i), (c)(2)(i), (c)(4)(i);
- Added 40 CFR 63.1514(b)(4)(iv) that requires that D/F emissions determined at performance test must not exceed 1.5 ug D/F TEQ/Mg of feed/charge to demonstrate that it qualifies as a group 2 furnace. This section was added for consistency with § 63.1514(b)(2)(iv);
- Clarified §§ 63.1514(c)(5) and (6) with respect to requirements for changing operating modes between a group 1 and a group 2 furnace; and
- Removed the proposed requirement for area sources to conduct performance

tests every 5 years in 40 CFR 63.1514(d)(2).

3. What key comments did we receive regarding changing furnace classification?

Comment: Several comments were received objecting to the proposed limits on the frequency of changing furnace classification. Four commenters on the 2012 proposal asked that the EPA allow controlled furnaces to change operating modes more frequently than once every 6 months. The commenters particularly noted the need for flexibility for unplanned baghouse maintenance and repair. Although the 2012 proposed rule allows a change of operating mode for planned maintenance of air pollution control devices, the commenters stated that a restriction to ''once every 6 months'' for unplanned maintenance is ill-advised because such a restriction may result in shutdown of the entire casting operation or encourage an owner or operator to delay baghouse shutdown and repairs that could be initiated immediately by changing to a ''cleaner'' operating mode that has already been demonstrated to comply with the applicable emission limits. One commenter stated that the proposed limit (of once every 6 months) on the frequency of changes other than for ''planned'' maintenance would severely limit facility flexibility. One of the commenters requested the EPA to revise 40 CFR 63.1514(e) to allow controlled furnaces to change operating modes (and revert to prechange operating mode) without restriction on frequency, when the air pollution control device must be shutdown for both planned and unplanned maintenance.

One commenter on the 2012 proposal noted that in the proposed 40 CFR 63.1514(e), the proposed requirements for operating in different modes include testing to demonstrate compliance under each mode, revising the OM&M plan to reflect all planned operating modes and revising labels to display compliant operating parameters for each operating mode. The commenter observed that the EPA has listed recordkeeping requirements when changing furnace classifications, but the EPA has not listed any barriers to implementation or enforcement once a stack test has been performed demonstrating compliance and an OM&M plan submitted. The commenter concludes that if tests prove compliance while operating in each mode, there is no justification for restricting the frequency of changes.

One commenter noted interactions over several years between the commenter and the EPA regarding the use of alternative operating scenarios. The commenter stated that those communications (and litigation) resulted in a February 16, 2012, Applicability Determination (which was attached to their comment). The commenter noted that the commenter had explained the need for flexibility to change operating modes in this proposed rule to EPA in a letter dated January 18, 2012, (also attached to their comment). The commenter recommended that the EPA use the approach in the February 16, 2012, Applicability Determination in Subpart RRR.

In a comment on the 2014 supplemental proposal, one commenter stated that the EPA has not adequately explained why it is proposing to allow 4 changes in furnace operating mode, or provided any reasoned explanation for why these changes are lawful and reasonable, in view of the requirement that standards apply at all times. The commenter stated that before allowing such changes to be made by a facility, the EPA must ensure that this is not equivalent to an exemption from the standards, which a facility may take advantage of under the EPA's proposal four times a year.

Response: As discussed in the preamble to the 2012 proposed rule, the EPA proposed to address an area of uncertainty under Subpart RRR by allowing changes in furnace classification, or furnace operating mode, subject to procedural and testing requirements and a limit on frequency of no more than one change (and associated reversion) every 6 months. As summarized above, the EPA received comments on the 2012 proposal requesting additional or unlimited furnace classification changes. Based on the comments received, the EPA reevaluated the limit on frequency of furnace classification changes. The EPA received from a commenter an inventory of the number of classification changes that occurred each year at a specific furnace over a nearly 10-year period (available in the docket for this rulemaking). The highest number of furnace classification changes for this furnace in one year, including both planned and unplanned changes, was nine.

In response to the comments and information received and because of the potential difficulty in distinguishing between a planned and unplanned change, in the 2014 supplemental proposal we proposed a revised frequency limit of four (including the four associated reversions) in any 6-month period, including both planned and unplanned events, with a provision allowing additional changes by petitioning the appropriate authority. The EPA explained that the revised limit balances the interest in allowing furnace classification changes while preserving the EPA's and delegated authorities' practical and effective enforcement of the emission limitations, work practice standards, and other requirements of Subpart RRR.

Based on the EPA's experience in overseeing facilities' compliance with the Subpart RRR NESHAP, the EPA believes it will be challenging in many circumstances for a regulatory compliance inspector to retroactively confirm which of two scrap inventories (*i.e.*, one clean charge and the other non-clean charge) was processed in a furnace at a given time in the past, and whether the allowed type of feed/charge was used for the furnace classification that was applicable for that time period. Similarly, it may be difficult to determine if the flux type and flux rate applied during that time period were compliant with the then-applicable furnace classification. The difficulty of verifying the inputs to the calculations used to determine SAPU emission limits, and daily and rolling average SAPU emission rates when furnace control device status and feed/charge type are frequently changed for one or more emission units within a SAPU may lead to further uncertainty in verifying compliance. On-site inspections may be difficult to conduct properly if the selected provisions of the OM&M plan applicable to furnace operation on the day and time of the inspection are subject to frequent change. For all of these reasons, increased frequency of allowed furnace classification changes places greater burdens on regulatory oversight agencies and personnel and creates the potential for impaired regulatory oversight.

In recognition of the issues raised by allowing repeated changes in furnace classification and applicable emission standards, the EPA is finalizing a limit of four on the number of times in a 6-month period a Subpart RRR facility may change classification of a furnace (*e.g.*, changing furnace classification from a controlled group 1 furnace to an uncontrolled group 2 furnace, and back). The EPA appreciates the value in providing operational flexibility for regulated sources, but believes the limit is necessary to ensure effective implementation and regulatory oversight of the rule. Facilities are allowed to change furnace classification up to four times during a 6-month period. The final rule clarifies that a

change from one operating mode to another and back is considered one change in operating mode. The EPA believes allowing unlimited changes of furnace classification would be impractical, as the monitoring, recordkeeping, reporting, and labeling requirement changes associated with changing furnace classifications would be difficult for the regulated community to follow and for the regulatory agencies to determine and verify continuous compliance. Furthermore, the EPA and state agency experience has shown that some facilities have difficulty preventing excess emissions from entering the flue gas from group 1 furnaces, and, therefore, changing from a group 1 furnace to a group 2 or uncontrolled group 1 status using cleaner charge may not necessarily result in a reduction of emissions. More frequent changes in furnace classifications could result in a greater potential for excess emissions in some instances. The EPA selected the number of allowable changes in furnace classifications based on information and data received from industry on the number of changes in furnace classification over an annual period. The EPA believes that four changes per 6-month period will allow industry the flexibility it needs while maintaining confidence in the level of implementation, compliance and enforcement that can be achieved in changing from one classification to another. If a source needs additional classification changes in a 6-month period, the rule allows the source to petition the appropriate authority for approval.

Following the 2014 supplemental proposal, we received two positive comments from industry on the revised frequency limit and the option to request additional changes if needed. Only one comment was received opposing the revised frequency limit. It does not appear to the EPA that the ability to change furnace modes has been an issue for most of the secondary aluminum production industry. Furthermore, the commenter opposing the revised limit did not provide additional data to support a greater frequency or the need for an unlimited frequency. We note that in the supplemental proposal, we specifically requested ''any commenter who would like the EPA to consider a different limit on frequency to include a specific rationale and factual basis for why a different frequency would be appropriate as well as any data on historical frequencies of furnace classification changes under subpart RRR.'' 79 FR at 72902. In addition, the EPA is finalizing a rule provision to allow the industry to request approval for a greater frequency of furnace classification changes if needed for their particular operation. Based on data from industry and the comments received on the supplemental proposal, we do not believe that it is necessary to further revise the limit on the frequency of furnace changes. In this final rule, we allow four changes in furnace classification per 6-month period with the option of requesting in advance additional changes from the appropriate authority.

In response to the same commenter's suggestion that EPA ''adopt the approach'' in a 2012 EPA letter allowing changes in classification for a furnace owned by the commenter, the EPA notes the letter addressed only a single, relatively unusual ''tilt type'' reverberatory furnace ''in contrast to most reverberatory furnaces'' and was located at an area source subject only to D/F limits and not the other limits applicable to major sources under Subpart RRR. The letter also expressly provided that it did not limit the EPA's authority to revise Subpart RRR requirements through rulemaking.

We believe the February 16, 2012, applicability determination is conceptually consistent with the rule changes, particularly for the specific type of furnace at issue in that determination. The Subpart RRR rule changes build upon several elements of the February 16, 2012, determination to address concerns that switching operating modes for any furnace subject to Subpart RRR be done in a manner that is fully compliant with Subpart RRR for each operating mode, while at the same time avoiding overly burdensome requirements for industry.

In response to the commenter on the 2014 supplemental proposal who asserted that EPA has not adequately explained how it is lawful and reasonable to allow four furnace classification changes per year in view of the requirement that standards apply at all times and must ensure this is not an exemption from standards, we provided such an explanation in the 2012 proposed rule preamble, and the commenter did not submit any comments in response to the 2012 proposed rule. In the 2014 supplemental proposal, we proposed a revised limit on frequency of classification changes, but we proposed no other revision and stated we ''are not requesting comments on any other aspect of the proposed provisions for furnace classification changes.'' 79 FR at 72902. The comment refers to the revised proposed limit of four changes (per 6-month period, not per year as described by the commenter), but the substance of the comment concerns continuity of emission standards and potential exemption from standards, which are not specific to the frequency limit and were addressed previously in the 2012 proposal.

We note that the rule ensures this is not an exemption from standards. As discussed above, there was uncertainty about whether Subpart RRR allowed changes in furnace classification, but, at least in some specific circumstances and conditions, furnace classification changes were allowed under the existing rule. The EPA addressed the issue in the 2012 and 2014 proposals and is finalizing rule provisions clarifying the procedural, testing, operating, and recordkeeping requirements when changing furnace operating modes, so as to ensure continuous compliance with Subpart RRR standards. The final rule specifies how a furnace can lawfully change from one operating mode under the rule to another and does not at any time exempt a furnace from meeting applicable standards.

Comment: Several commenters objected to the EPA's addition to Subpart RRR of any provisions regulating the changing of furnace classification. A commenter on the 2012 proposal stated that the proposed rule will severely restrict flexibility, while the EPA is taking credit for saving the industry $600,000 by ''allowing'' actions that were previously unrestricted. The commenter proposes that all language pertaining to furnace change classification be removed from the proposed rule.

In a comment on the 2014 supplemental proposal, one commenter stated that any restrictions on changing furnace classification are unnecessarily burdensome and do not provide any additional environmental benefit. The commenter stated that Subpart RRR as promulgated in 2000 provides sufficient basis for facilities to change furnace classification while maintaining compliance with the emission limits and other requirements. The commenter attached a 2012 letter from Edward J. Messina, in which the EPA acknowledges that a facility ''may change operating modes consistent with Subpart RRR'' and ''can comply with Subpart RRR when it operates within one (and only one) of three proposed operating modes for the entirety of any given melt cycle.'' The commenter provided a copy of the 2012 letter as part of their submittal. The commenter stated that they revised their

Kalamazoo, Michigan, facility's Permit to Install, to include the ability to change furnace classification consistent with the EPA's 2012 letter and have successfully changed from group 1 to group 2 operation in response to unexpected baghouse system malfunctions while maintaining compliance with the applicable emission limits and other requirements of Subpart RRR.

In a comment on the supplemental proposal, the same commenter stated that the EPA attempts to justify the restrictions on changing furnace classification as necessary for practical and effective enforcement of Subpart RRR; however, the EPA does not mention any occasion in the 14 year history of the MACT rule when a facility's use of these provisions has resulted in any problem related to enforcement or compliance. The commenter stated that facilities have been using the ability to change furnace classification while maintaining compliance with all of the requirements of Subpart RRR for some time without creating any enforcement or compliance problems. The EPA has provided no rational basis for imposing this additional regulatory burden. The commenter recommended the EPA adopt the approach to changing furnace classification provided in the 2012 EPA determination (the commenter attached the 2012 letter to their comments), which does not restrict frequency of changes and does not require testing with a number of cycles of clean charge prior to unplanned changes, which is unnecessary and impracticable.

Response: The EPA disagrees that changes in furnace classification were unrestricted prior to this rulemaking. As explained in the preamble to the proposed rule, the existing Subpart RRR regulatory text did not explicitly address whether and under what conditions a furnace may change its classification from one operating mode to another. This led to uncertainty for facilities and permitting authorities when considering and evaluating compliance options. The rule provisions governing changes in furnace classification are intended to provide clarity and add flexibility for the industry when, for example, normal feed materials are temporarily unavailable and there is a desire by the facility to operate the furnace in a different mode.

We disagree with the commenter's assertion that there have been no problems related to enforcement or compliance for facilities changing furnace classification in the 14-year history of the MACT rule. Although we have very limited data on the practice of changing furnace classification in the industry, in part because we received data from only two companies following the 2012 proposal, we know that some facilities have submitted requests to authorities that they be allowed to change furnace classification and some of these requests were denied. In such cases, the absence of national regulations clearly stating whether and under what conditions the practice is allowed under Subpart RRR served to limit compliance flexibility and was potentially costly to facilities that sought to change their furnace operating mode. Therefore, the addition of these provisions provide clear instructions to regulatory agencies and the industry on the criteria and procedures necessary to change from one furnace classification to a different one.

Comment: Two commenters on the 2012 proposal disagreed with the EPA's proposal to allow secondary aluminum producers to switch furnace classification only after having one or more cycles of operation with clean charge before a control device can be turned off. The commenters stated that data from tests on two Alcoa furnaces show that there is no carryover of emissions from one charge to the next, and, by requiring operators to wait more than one cycle of operation before turning off the control device, the rule restricts a facility's ability to take timely action to repair an air pollution control device in the event of an unexpected equipment breakdown.

One of the commenters on the 2012 proposal described multiple instances of performance tests for two melting furnaces regarding emissions of batches operated with clean charge immediately after using dirty charge. The commenter provided summaries of the performance tests, and the tests show that emissions measured during the very next furnace cycle after using dirty charge were below the group 1 furnace emission limits.

In a comment on the supplemental proposal, one commenter stated that the requirement in the 2012 proposal to wait one or more operational cycles before turning off the control device when switching to clean charge in a furnace classification change is not supported by available data indicating that there is not ''carry-over'' of emissions from one batch to the next. The commenter cited furnace testing data from testing at Alcoa's Lancaster, Pennsylvania, facility.

One commenter stated that the preamble to the supplemental proposal does not state whether the EPA is proposing to remove the requirement in 40 CFR 63.1514 of the 2012 proposal to wait one or more charge-to-tap cycles using clean charge and without reactive flux addition before the performance test can be performed for a change from group 1 to group 2 operation. The commenter stated that, based on the proposed requirements, because the change of classification to a furnace without add-on control cannot be made until waiting the number of cycles operated during the performance test with clean charge (and without adding reactive flux), a classification change in this scenario could not be made in response to an unplanned event such as an unexpected baghouse malfunction. The commenter stated that facilities would be prevented from responding to unexpected baghouse system malfunctions by changing to group 2 operation. The commenter stated that similar restrictions are contained in 2012 proposed 40 CFR 63.1514 for changing from group 1 with add-on controls to group 1 without add-on controls. The commenter stated that the EPA provides no justification for requiring a facility to wait one or more charge-to-tap cycles before testing without add-on controls; therefore, the provision contained in the supplemental proposal cannot provide for reclassification during unplanned changes such as baghouse malfunction.

One commenter on the 2012 proposal asserted that if the EPA retains a flush cycle requirement in order to reclassify furnaces, each scenario should provide a time-based option for determining when the furnace can be reclassified. The commenter observed that the proposed sections 63.1514(a)(2)(i), (a)(4)(i), (c)(2)(i) and (c)(4)(i) allow either a number of charge-to-tap cycles or an operating time of 24 hours to elapse prior to furnace reclassification, and sections 63.1514(b)(2)(i) and (b)(4)(i) only provide a number of charge-to-tap cycles, and do not provide a time-based alternative. The commenter also suggested that instead of requiring ''1 or more charge to tap cycles, or 24 operating hours,'' the rule should require ''1 or more operating cycles or time period used in the performance test.'' The commenter explained that this language is more consistent with the description of ''furnace cycle'' used throughout Subpart RRR, and is more appropriate because a process cycle for some continuous operations is less than 24 hours.

One commenter on the 2012 proposal asked that the text for 40 CFR 63.1514(b)(2)(i) and 40 CFR 63.1514(b)(4)(i), ''Testing under this paragraph may be conducted at any time

after the furnace has completed 1 or more charge to tap cycles with clean charge,'' be changed to ''Testing under this paragraph may be conducted at any time after the furnace has been tapped and has completed at least one (1) more additional cycle with clean charge.''

A commenter on the 2012 proposal observed that the proposed rule inconsistently uses the phrase ''additional tests,'' which appears to apply to operating modes for which the facility has already demonstrated compliance by conducting a valid performance test. The commenter noted that the February 16, 2012, Applicability Determination already specifies that testing is required to demonstrate compliance with emission limits for each operating mode, and requiring additional tests would add expense without any added environmental benefit.

Another commenter on the 2012 proposal observed that this proposed provision would require ''additional tests'' to demonstrate compliance with operating modes that already have valid performance tests. The commenter objected to the EPA requiring area sources to retest every 5 years. The commenter also objected to the EPA requiring that tilting melters at area sources in group 2 operating mode perform stack testing.

Response: In response to the comments and information provided by the commenters, the EPA agrees that it is not necessary to require one or more cycles with clean charge before a control device can be shut off under the change of classification procedures. As such, we have modified the final rule, accordingly.

The EPA has also removed the requirement that furnaces at area sources using group 2 as any alternative operating mode repeat the performance test every 5 years. Our use of the phrase ''additional performance tests'' in 40 CFR 63.1514 was not intended to apply to operating modes for which the facility has already demonstrated compliance by conducting a valid and relevant performance test. Accordingly, we have modified the final rule language in 40 CFR 63.1514 to make it clear that performance tests must be performed only if compliance for the operating mode has not already been demonstrated by a valid performance test and have clarified 40 CFR 63.1514 to indicate that ''additional tests'' are not required for operating modes for which the facility has already demonstrated compliance by conducting a valid performance test. In response to the commenter's objection to requiring a tilting melter to test when in group 2 mode, neither the proposed rule nor the final rule contains such a requirement for any tilting reverberatory furnace capable of completely removing furnace contents between batches.

4. What is the rationale for our final approach for changing furnace classification?

The final rule addresses an area of uncertainty under Subpart RRR by specifying rule provisions expressly allowing changes in furnace classification from one authorized operating mode to another, including from a controlled furnace operating mode to an uncontrolled furnace operating mode, subject to procedural and testing requirements, operating requirements and recordkeeping requirements. The final rule allows changes in furnace operating modes up to four times (including the four associated reversions) in a 6-month period. This frequency of changes in furnace operating modes is based on limited information submitted by industry on the number of furnaces changes that occur, taking into account the increased burden on the EPA and delegated states to oversee compliance for furnaces that repeatedly change their classification and associated emission standards and compliance requirements under Subpart RRR. The final rule allows sources to request additional changes in furnace operating mode by petitioning the permitting authority for major sources, or the Administrator for area sources.

E. Flow Rate Measurements and Annual Inspections of Capture/Collection Systems

1. What did we propose regarding flow rate measurements and annual inspections of capture/collection systems?

In the 2012 proposal, we proposed codifying in Subpart RRR our existing interpretation that annual hood inspections include flow rate measurements using EPA Reference Methods 1 and 2 in Appendix A to 40 CFR part 60. These flow rate measurements supplement the effectiveness of the required visual inspection for leaks, to reveal the presence of obstructions in the ductwork, confirm that fan efficiency has not declined and provide a measured value for air flow. Commenters on the 2012 proposal requested that the EPA allow flexibility in the methods used to complete the annual inspections of capture/collection systems stating that the use of volumetric flow measurement was often not necessary and Method 1 and 2 tests could be a cost burden for some facilities. Comments also indicated that routine, but less frequent, flow rate measurements could ensure that capture/collection systems are operated properly and suggested alternative methods of ensuring the efficiency of capture/collection systems.

Based on the comments received and our consideration of inspection needs, in the 2014 supplemental proposal we proposed additional options that provide more flexibility in how affected sources can verify the efficiency of their capture/collection system. Instead of annual Methods 1 and 2 testing, we proposed that sources may choose to perform flow rate measurements using EPA Methods 1 and 2 once every 5 years, provided that a flow rate indicator consisting of a pitot tube and differential pressure gauge is installed and used to record daily the differential pressure and to ensure that the differential pressure is maintained at or above 90 percent of the average pressure differential measured during the most recent Method 2 performance test series, and that the flow rate indicator is inspected annually. As another option to annual flow rate measurements using Methods 1 and 2, the EPA proposed to allow Methods 1 and 2 testing to be performed every 5 years provided that daily measurements of the revolutions per minute (RPM) of the capture and collection system's fan pr a fan motor amperage (amps) are taken, the readings are recorded daily, and the fan RPM or amps are maintained at or above 90 percent of the average RPM or amps measured during the most recent Method 2 performance test. Furthermore, we proposed that as an alternative to the flow rate measurements using Methods 1 and 2, the annual hood inspection requirements can be satisfied by conducting annual verification of a permanent total enclosure using EPA Method 204. We further proposed that as an alternative to the annual verification of a permanent total enclosure using EPA Method 204, verification can be performed once every 5 years if negative pressure in the enclosure is directly monitored by a pressure indicator and readings are recorded daily or the system is interlocked to halt material feed should the system not operate under negative pressure. We also proposed that readings outside a specified range would need to be investigated and steps taken to restore normal operation, and that pressure indicators would need to

be inspected annually for damage and operability.

2. What changed since proposal regarding flow rate measurements and annual inspections of capture/collection systems?

The final rule contains modified monitoring requirements in 40 CFR 63.1510(d) to allow the use of non-pitot based flow rate measuring equipment (*i.e.*, hotwire anemometer, ultrasonic flow meter, cross-duct pressure differential sensor, venturi pressure differential monitoring or orifice plate) equipped with an associated thermocouple and automated data logging software and associated hardware. These monitoring provisions provide the secondary aluminum production source category with flexibility and less costly alternatives to annual inspections using Methods 1 and 2 and Method 204 while also ensuring the proper operation of capture and collection systems.

3. What key comments did we receive regarding flow rate measurements and annual inspections of capture/collection systems?

Comment: One commenter on the 2012 proposal contended that the EPA should continue to allow affected sources flexibility in methods used to complete annual inspections of capture/collection and closed vent systems. The commenter stated that the proposed rule would add a volumetric flow measurement requirement, which is unnecessary in many cases, to demonstrate proper operation of the capture/collection and closed vent system. The commenter contended that current rule flexibility allows sources to utilize monitoring methods that are appropriate and cost effective for their operations and equipment; this choice of monitoring method is included in an approved OM&M plan certified by the owner or operator. The commenter also noted that the additional cost burden on facilities to perform a Method 1 and Method 2 measurement was not considered by the EPA in the rulemaking process. The commenter estimated that EPA Methods 1 and 2 will require the facility to hire an outside contractor and incur costs of more than $3,000 per unit. The commenter recommended that the Agency should continue to allow affected sources the ability to determine the best inspection methods to verify that capture/collection and closed vent systems meet operating requirements.

One commenter on the 2012 proposal discussed 40 CFR 63.1510(d)(2), stating that while in agreement with the need to routinely perform volumetric flow rate measurements, after negotiation with the EPA, a determination was made that a frequency of every 30 months was sufficient, as documented in a 2009 consent decree resolving a federal enforcement action against the company. The commenter asserted that volumetric flow rate measurement is a costly procedure, performed by outside contractors costing about $2,000 a day, and cost per inspection will vary by the number of systems to be checked. The commenter noted that for the commenter's facilities, approximately fifty rechecks have been performed to comply with the requirements of the consent decree or due to new stack testing. The commenter stated that all have demonstrated that each system is operating in accordance with the requirements in 40 CFR 63.1506(c). According to the commenter, this shows that there is no need to conduct this flow measurement more than once every 30 months. The commenter objected to the requirement to perform volumetric flow measurements on each hood. The commenter stated that when multiple hoods are manifolded together, it is not always possible to meet Method 1 requirements on all hoods to be measured, and at times it is necessary to measure the main trunk and arrive at the volumetric flow rate for an individual hood by calculation. According to the commenter, this method has been used repeatedly and submitted to the EPA and state agencies with stack test reports, and has been accepted. The commenter requested that the EPA clarify that the proposed language does not preclude this approach, or modify the proposed language to include such clarification.

Response: Verification of the flow rate of the exhaust stream that is directed to the control device is necessary to assure the efficiency of the control system and to ensure continuous compliance with the emission standards between performance tests. In addition, owners or operators of area source facilities are not required to conduct periodic performance tests and this requirement may help detect leaks and defects in the duct work sooner than they otherwise would be found. The EPA is adopting the requirements as proposed in the 2012 and 2014 proposals, including options that provide flexibility in how affected sources can verify their flow rates.

Instead of annual Methods 1 and 2 testing, flow rate measurements using EPA Methods 1 and 2 can be performed once every 5 years, provided that a flow rate indicator consisting of a pitot tube and differential pressure gauge is installed and used to record daily the differential pressure, that the differential pressure is maintained at or above 90 percent of the pressure differential measured during the most recent Method 2 performance test series, and that the flow rate indicator is inspected annually. As another option to annual flow rate measurements using Methods 1 and 2, the EPA is allowing Methods 1 and 2 to be performed every 5 years provided that daily measurements of the capture and collection system's fan RPM are made, that the readings are recorded daily, and that the RPM are maintained at or above 90 percent of the RPM measured during the most recent Method 2 performance test series. Other options for annual flow rate measurements using Methods 1 and 2 that we are allowing are annual measurements of the face velocity of booth-type hoods, or installation of static pressure measurement in the duct at the hood exit, provided that the values obtained for these measurements are at or above 90 percent of the values measured during the most recent Method 2 performance test series. Further, we are allowing that as an alternative to the flow rate measurements using Methods 1 and 2, the annual hood inspection requirements can be satisfied by conducting annual verification of a permanent total enclosure using EPA Method 204.

We are further allowing that, as an alternative to the annual verification of a permanent total enclosure using EPA Method 204, verification can be performed once every 5 years if negative pressure in the enclosure is directly monitored by a pressure indicator and readings are recorded daily or the system is interlocked to halt material feed should the system not operate under negative pressure. We are also requiring that readings outside a specified range be investigated and steps taken to restore normal operation, and that pressure indicators would need to be inspected annually for damage and operability. We are also allowing non-pitot based flow rate measuring equipment (*i.e.*, hotwire anemometer, ultrasonic flow meter, cross-duct pressure differential sensor, venturi pressure differential monitoring or orifice plate) equipped with an associated thermocouple and automated data logging software and associated hardware as a sufficient monitoring system for compliance with this rule.

The 2009 Consent Decree at paragraph 122 states clearly that each company is responsible for achieving and maintaining complete compliance with all applicable federal laws and

regulations, and compliance with the Consent Decree does not necessarily mean compliance with the Clean Air Act or implementing regulations. Further, the Consent Decree does not limit the EPA's authority to revise subpart RRR.

The commenters assert that annual measurements of flow rates will result in additional costs to conduct EPA Methods 1 and 2 testing. Because in EPA's view the existing requirements prior to this rulemaking required annual testing, we disagree that these costs represent a new burden. See Memorandum, Michael Alushin, EPA Office of Compliance Enforcement Assurance, to EPA Regional Air Directors, ''Compliance with ACGIH Ventilation Manual,'' August 16, 2006, which is in this rulemaking docket.

Comment: In a comment on the supplemental proposal, one commenter stated that in the supplemental proposal, the EPA would allow several alternatives to an annual Methods 1 and 2 flow rate measurement including the option to verify a permanent total enclosure every five years and directly monitor negative pressure, which they support. The commenter stated that there appears to be an inconsistency in proposed sections 63.1506(c) and 63.1510(d). The commenter stated that 40 CFR 63.1506(c)(1) requires capture and collection systems to meet ''engineering standards for minimum exhaust rates'' from the ACGIH Manuals, but the supplemental proposal allows an operator to ensure compliance with 40 CFR 63.1506(c) by verifying a permanent total enclosure by Method 204, which verifies the facial velocity and that an inward flow is maintained at all openings, but does not include a measurement of exhaust rates. The commenter stated that the ACGIH Manuals do not provide minimum exhaust rates for all types of capture and collection systems used by the secondary aluminum industry; for example, some capture and collection systems are not typical ventilation hoods and are more appropriately described in the ACGIH Manuals as ''Moderate Control Total Enclosures'' and, for these systems, the manual does not provide minimum exhaust rates, but rather describes appropriate velocities to maintain through openings in the enclosure. The commenter stated that to the extent the manuals are referenced in the final rule, the EPA should revise 40 CFR 63.1506 to remove the reference to ''minimum exhaust rates'' and require the system to be designed and monitored to meet ''applicable engineering standards'' as follows:

''Design and install a system for the capture and collection of emissions to meet the applicable engineering standards for minimum exhaust rates as published by the American Conference of Governmental Industrial Hygienists in *Industrial Ventilation: A Manual of Recommended Practice* 23rd or 27th edition (ACGIH Guidelines) (incorporated by reference in § 63.1502 of this subpart).''

Response: Because the ACGIH guidelines also contain inlet velocities as pointed out by the commenter, 40 CFR 63.1506(c)(1) of the final rule now reads ''Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates or inlet facial velocities as contained in the ACGIH Guidelines.''

Comment: In a comment on the supplemental proposal, one commenter stated that they concur with the flexibility that the EPA provides in 40 CFR 63.1510(d)(2)(ii) and (iii) to allow 5-year flow rate testing measurements to supplant the annual testing requirement, if a pitot tube and differential pressure gauge are installed and monitored in the hooding (ii), or if fan RPM's are tracked and recorded (iii). The commenter stated that, however, based on real world experience with the flow verification of permanently installed hooding devices, there are other options that should also be included that would provide the same level of protectiveness; two options are:

Option 1. Install a pressure tap in the duct just above the hood exit point, and monitor pressure similar to the pitot tube. The commenter stated that this is simpler than a pitot tube installation, less prone to clogging, and has been effectively used at an existing location. According to the commenter, the signal will equal pressure loss in the hood entrance plus velocity pressure in the duct, and generally be proportional to the velocity in the duct squared. The commenter stated that at 3,000 ft/min duct velocity it will be similar to the pitot tube at approximately 0.70 inches water gauge, that calibration of differential pressure readings can be done by EPA Methods 1 and 2 flow testing, and that it is easier to install in a duct since no straight run is required.

Option 2. If the hood has a straight face (*i.e.*, booth type), face velocity measurements could be made over the face of the hood and averaged to determine velocity. Measured face velocity could be compared to calculated data vs. EPA Methods 1 and 2 on a 5-year frequency. The commenter provided the following comments on this option:

- No negative flow points should be observed, since this will allow smoke to escape the hood.
- This will not work for canopy or irregularly shaped hoods.
- Low velocities require an appropriate measurement device.
- Cannot be done while material is being loaded into hood.

The commenter requested that new paragraphs (iv) and (v) be added to 40 CFR 63.1510(d)(2) for the inclusion of options 1 and 2 above.

In a comment on the supplemental proposal, one commenter objected to the EPA's supplemental proposal to the extent that it only provides two methods to measure flow to avoid annual inspection for permanently installed capture, collection, and transport systems (*i.e.*, hoods). The commenter stated that Table 3 of the supplemental proposal allows a source to delay annual inspections for capture devices to once every 5 years, if the source monitors flow through daily pressure differential measurements or fan RPM measurements. The commenter stated that they support the recommendations and rationale of the Aluminum Association (TAA) to include additional flow monitoring alternatives to avoid annual inspections, including installation of a pressure tube above hood exit points, face velocity measurements (for straight face (booth type) hoods) and by direct observation of smoke in the hood by a method 22 or similar test. The commenter stated that by including additional flow-monitoring alternatives, the EPA would allow sources the option to pick the most reliable and least burdensome flow monitoring method that fits the type of hood used to capture emissions at the source.

In a comment on the supplemental proposal, one commenter stated that the alternative to the annual capture/collection and closed vent system inspection requirements at 40 CFR 63.1510(d)(2)(ii) is unreasonably restrictive and should not be limited to using conventional pitot tube and a differential pressure gauge equipment to qualify for the once in 5 year alternative. The commenter recommended that the EPA further amend 63.1510(d)(2) to permit the use of non-pitot based flow measuring equipment and to permit volumetric flow measurements to be automated using available software and hardware.

Response: The proposed alternatives of annual measurements of face velocity for straight face (booth-type) hoods using a hot-wire anemometer, or installation of a pressure tap in the duct just downstream of the hood exit point,

and monitoring pressure, as suggested by the commenters, are acceptable. We also agree that non-pitot based flow rate measuring equipment (*i.e.*, hotwire anemometer, ultrasonic flow meter, cross-duct pressure differential sensor, venturi pressure differential monitoring or orifice plate) equipped with an associated thermocouple and automated data logging software and associated hardware is a sufficient monitoring system for compliance with this rule. We are modifying the rule language to accommodate these monitoring options.

4. What is the rationale for our final approach for flow rate measurements and annual inspections of capture/collection systems?

Based on the rationale presented in the preamble to the 2012 proposed rule, the final rule codifies in subpart RRR our interpretation that annual inspections of capture and collection systems include flow rate measurements using EPA Reference Methods 1 and 2 in Appendix A to 40 CFR part 60. However, based on the public comments regarding additional flow measurement technologies and our responses to those comments presented in the previous section of this preamble, the final rule also includes additional options that provide more flexibility in how affected sources can verify the efficiency of their capture/collection system.

F. Compliance Dates

1. What compliance dates did we propose?

In the 2012 proposal, the EPA proposed that owners or operators of existing affected sources comply with the proposed amendments within 90 days of the publication of the final rule in the **Federal Register**. Commenters stated that the proposed 90-day compliance deadline was insufficient for sources to comply with certain provisions. They maintained that the rule changes would require operational planning, maintenance planning, reprogramming of data acquisition systems, design and installation of hooding equipment and/or negotiations with permitting authorities to gain performance test plan approvals (with provisions to minimize fugitive emissions during testing in place of capture hoods). They pointed out that facilities that choose to design and install capture hoods for performance testing will need time to design and complete these installations, conduct initial performance testing and modify their operations, charge materials and/or products to ensure compliance. Some rule changes, furnace classification changes, HF testing and testing uncontrolled furnaces for example, would require revisions to OM&M plans as well as to permits to include newly established operating parameters in cases where changes to furnace classifications are made. Commenters stated that compliance with HF emission standards that may affect choice of flux materials, daily calculation of HF emissions and compliance with SAPU limit that will require reprogramming of data systems to include HF and/or fluoride containing flux composition data would also require time to be researched, selected, purchased, financed and installed. Commenters suggested compliance deadlines ranging from 2 to 3 years.

In the 2014 supplemental proposal, the EPA agreed with commenters that the proposed 90-day compliance deadline was insufficient for sources to comply with certain proposed provisions and proposed extended compliance periods. The EPA proposed a 180-day compliance period for the revisions listed in 40 CFR 63.1501(d). For the amendments to include HF emissions (in 40 CFR 63.1505(i)(4) and (k)(2)), the testing of existing uncontrolled furnaces (§§ 63.1512(e)(4), (e)(5), (e)(6) and (e)(7)), and changing furnace classification (40 CFR 63.1514), the EPA proposed a compliance date of 2 years after promulgation.

2. What compliance dates changed since proposal?

As noted above, we adjusted some compliance dates in our supplemental proposal. We received no comments or information following the supplemental proposal that warranted any changes to the compliance dates proposed in the supplemental proposal. As proposed, compliance with the provisions listed in 40 CFR 63.1501(d) is required 180 days following publication of the final rule while compliance with the provisions listed in 40 CFR 63.1501(e) is required 2 years following publication of the final rule.

3. What key comments did we receive related to compliance dates?

Comment: One commenter on the 2012 proposal agreed with the 180 day time period for startup for new sources' initial performance tests. However, the commenter stated that due to the integration of modern facilities, running a regulated unit at full capacity may be affected or constrained by downstream equipment, market constraints or other technical issues beyond the control of the facility. The commenter stated that the current provisions provide relief only through the administrative order process, which is costly and arduous. The commenter requested that the EPA include a provision to petition for an extension of the deadline if a test is not feasible within the allowed time period to allow time for the facility to reach full capacity.

Response: As proposed in the supplemental proposal, the final amendments increase the time period for initial compliance testing for a new source from 90 days to 180 days. The commenter did not provide data or other specific documentation to support a conclusion that an affected source cannot reach full capacity within 180 days of startup.

Comment: Two commenters on the 2012 proposal asked the EPA to clarify in the rule that the new HF requirements are not effective until ''the next scheduled performance test after the effective date of the final rule.'' The commenters observed that in the proposal preamble the HF testing requirement, and presumably the HF limit, was said to become effective ''at the next scheduled performance test after the effective date of the final rule.'' The commenters noted that the regulatory language does not make this clear, as 40 CFR 63.1501 states that owners or operators must comply with the HF limit and the HF testing requirement within 90 days after promulgation.

In comments on the supplemental proposal, two commenters requested that the EPA clarify that the intent of the proposed language is to not require testing for HF on existing major source uncontrolled group 1 furnaces within 2 years of the final rule publication date but at the next scheduled 5 year required stack test following publication of the final rule.

One commenter on the 2014 supplemental proposal stated that they interpret the proposed language of 40 CFR 63.1501(e) to indicate that the effective date of the new HF standard and the new requirements for testing existing uncontrolled group 1 furnaces is 2 years from final rule promulgation and that they further understand that testing to demonstrate compliance with the newly effective provisions can be done on a timeline consistent with the existing 5-year performance testing cycle established using the existing 40 CFR 63.1511(e) provision such that the compliance demonstration is made at the next scheduled performance test after the effective date of the final rule. The commenter stated that this is true even if the next scheduled performance test on the normal 5-year testing cycle is outside the 2-year compliance

window. The commenter provided an example to illustrate their interpretation of the compliance date requirements.

Two commenters suggested the following revision to 40 CFR 63.1512(e)(4):

''When testing an existing uncontrolled furnace, the owner or operator must comply with the requirements of either paragraph (e)(4)(i) or paragraph (ii) of this section at the next performance test required by 40 CFR 63.1511(e).''

The commenters also requested clarification of when HF emissions must be included in SAPU calculations. According to the commenters, furnaces at some facilities are on different testing schedules, which mean that some furnaces will become subject to the HF limit and HF SAPU calculation before others. The commenters assumed each furnace would be added to the HF SAPU calculation when tested, but the commenters requested that the EPA clarify this in the final rule.

Response: Although the final rule is effective upon promulgation pursuant to CAA section 112(d)(10), the commenters are correct that the final rule requires HF testing at the next scheduled performance test if the test occurs 2 years or more after the final rule is published in the **Federal Register**. We clarified in the final rule that the HF requirements apply to the next scheduled performance test if the next scheduled performance test occurs 2 years or more after the final rule is published in the **Federal Register**. The final rule also clearly provides that each furnace will be added to the HF SAPU calculation following the initial performance test for HF for the furnace, or for a representative furnace tested, to determine HF emissions from the furnace.

Comment: Several commenters on the 2012 proposal disagreed with the proposed ninety-day compliance date. Two commenters stated that requiring compliance only 90 days after promulgation is unnecessary and does not provide sufficient time. One commenter suggested that due to engineering and management constraints, the period be extended to 180 days, which would allow the industry to make necessary changes. The commenter noted potential component lead-times and permitting procedures outside of the control of operators. Another commenter recommended 2 to 3 years for compliance, assuming the EPA promulgates corrections and clarifications that require a compliance window.

Two commenters on the 2012 proposal maintained the rule changes will require operational planning, maintenance planning, reprogramming of data acquisition systems, design and installation of hooding equipment and/or negotiations with permitting authorities to gain performance test plan approvals (with provisions to minimize fugitive emissions during testing in place of capture hoods). One commenter stated that facilities that choose to design and install capture hoods for performance testing will need time to design and complete these installations, conduct initial performance testing and modify their operations, charge materials and/or products to ensure compliance.

One commenter on the 2012 proposal stated that some facilities will also need to prepare and submit revised OM&M plans that incorporate changes related to bag leak detector maintenance, lime feeder calibrations, metal liquid depth monitoring and/or procedures for changing furnace classifications. The commenter noted that under the proposed rule, these revised OM&M plans could not be implemented until 60 days after submittal to the permitting authority, meaning that companies would effectively have only 30 days to define their compliance approach and submit revised OM&M plans. The commenter concluded that this 90-day compliance timeline is neither practicable nor reasonable.

One commenter on the 2012 proposal recommended a minimum of one year to implement the controls and reporting requirements. The commenter stated that any new technology requirements or installation of new or modification of existing emission controls would impose added costs, and 90 days did not provide an adequate opportunity for additions to be researched, selected, purchased, financed, and installed. The commenter also stated that the Subpart ZZZZZZ rule allowed two years and that would be preferable, but a period of no less than twelve months would be fair and acceptable. The commenter also suggested the same delay should apply to the development and filing of a written OM&M plan.

One commenter on the 2012 proposal stated that the following provisions cannot be met within 90 days due to the possible need for ductwork revisions and further stack testing: §§ 63.1505(a), 63.1505(i)(4), 63.1505(k), 63.1510(b), 63.1510(d)(2), 63.1510(o)(l)(ii), 63.1512(e)(l), 63.1512(e)(2), and 63.1512(e)(4). The commenter stated it is not reasonable to begin work on these provisions immediately since they will be subject to further comment and hopefully significant revision in the final rule.

Two commenters on the 2012 proposal requested a 3-year compliance timeline for the provisions that result in changes in operations and/or operation practices, or impact control technology and monitoring requirements at existing sources. One commenter stated that a 3-year compliance date would allow smaller producers opportunity to budget for large capital and resource costs. The commenters suggested a 3-year compliance date for the following provisions:

- § 63.1505(a)(1), emission limits applicable to SSM periods;
- § 63.1505(i)(4), compliance with HF emission standards that may affect choice of flux materials;
- § 63.1505(k)(2), daily calculation of HF emissions and compliance with SAPU limit that will require reprogramming of data systems to include HF and/or fluoride containing flux composition data;
- § 63.1510(b)(5), procedures in OM&M plan for process and control device parameters that require addition of lime injection rates that may require new or modified equipment to determine rates or calibrate lime mass feed rate and will require lime injection rate to be established during next scheduled performance test; 63.1510(b)(5), requirements and scope for capture/collection system inspections on controlled emission units;
- § 63.1510(i)(4), monthly lime injection rate verification that may require new or modified equipment to allow verification of lime mass feed rate;
- § 63.1510(j)(4), recordkeeping (and associated training of operating personnel) for solid flux added intermittently;
- § 63.1510(n)(1), monitoring molten metal level of sidewell furnaces that will require selection, purchase, installation, testing and maintenance procedures for new equipment;
- § 63.1512(e)(1) and (e)(4), deletes ''furnace exhaust outlet'' as compliance basis and imposes new compliance demonstration requirements for uncontrolled furnaces based on temporary capture hoods, reduced emission limit equal to 67 percent of the existing standard or procedures to minimize fugitive emissions during testing negotiated with permitting authority;
- § 63.1512(p)(2), record lime injection rates during the three test runs that will require lime injection rate to be established during next scheduled performance test; some existing systems do not have a viable means for weighing

mass rate of lime being injected and new or modified equipment will be required;

• § 63.1513(e)(1), (e)(2), and (e)(3), co-controlled units added to SAPU calculation that may require revision of OM&M plan and reprogramming of data systems used to track and record SAPU calculations; and

• § 63.1514, requirements for changing furnace classifications which differ from those in current Title V permits, and will need revision after owners and operators establish compliance conditions and gather performance data.

One commenter on the 2012 proposal suggested that the effective date for the revised 40 CFR 63.1511(b)(1) language would need to be ''at the next required performance test.'' The commenter asserted that the proposed provision changes the required test conditions for some operations and could not be met by the proposed effective date of 90 days.

One commenter on the 2012 proposal asserted that the EPA is not required to impose the 90-day compliance period on area sources because promulgation of section 112(f) standards is not required based on the EPA's findings that the MIR for secondary aluminum area sources, based on actual emissions, was 0.4-in-1 million. The commenter stated that the EPA may grant up to a 3-year compliance deadline for area sources. The commenter contended that, as a practical matter, the EPA should provide a compliance period for area sources commensurate with the several new administrative requirements for which more than 90 days are required to achieve implementation. The commenter stated that, due to the revisions required for facility operations and the time constraints for revision and approval of an OM&M plan, the EPA should grant at least a 1-year compliance period. The commenter described potential time constraints.

In a comment on the 2014 supplemental proposal, one commenter stated that compliance deadlines for new standards developed under the section 112 program must be set for a date that is as expeditious as practicable, but no later than 3 years after rule implementation. The commenter stated that the EPA is not required to impose the 180-day compliance period on area sources because promulgation of section 112(f) standards is not required when the residual cancer risk under the existing MACT standards are not equal to or greater than 1-in-1 million. The commenter stated that because of the low MIR from area sources (0.6-in-1 million), the EPA was not required to promulgate standards under 112(f); accordingly, the EPA may grant up to a three-year compliance deadline for area sources. The commenter stated that the EPA should provide a compliance period for area sources that is commensurate with the several new administrative and monitoring requirements for which more than 180 days are required to achieve full implementation. The commenter provided the following example to illustrate the need for a longer compliance period: Additional monitoring requirements for capture and collection systems proposed in 40 CFR 63.1510(d)(2) may require installation of flow rate or pressure monitoring equipment; these changes, and others proposed in the 2012 proposal, may require submittal of a revised OM&M plan to the permitting authority; among the revisions to the OM&M plan under the 2012 proposal are new requirements for the inspection of capture and collection systems and additional performance testing requirements; the owner or operator may not begin operating under this revised OM&M plan until approval is received from the permitting authority, or 60 days, whichever is sooner. The commenter stated that, even to the extent that the 2012 proposal provides for default approval of OM&M plans after 60 days, this only leaves the source with 120 days to install monitoring equipment and implement the plan; this time frame is inappropriate. The commenter stated that, due to the revisions required for facility operations and the time restraints for revision and approval of an OM&M plan, the EPA should grant at least a 1-year compliance period.

Response: As discussed in the 2014 supplemental proposal, the EPA agrees with the commenters on the 2012 proposal that the proposed 90-day compliance deadline is insufficient for sources to comply with certain provisions of the final rule and is finalizing extended compliance periods. The final compliance dates are the same as those proposed in the 2014 supplemental proposal, on which we received only one comment. As these amendments clarify existing requirements, and based on the lack of supporting information for the commenter's conclusory assertion that 2 years is insufficient, we do not agree that any of the revisions warrant an extension beyond 2 years to a 3-year compliance period. Regarding the commenter's concern that small producers would need 2 to 3 years to budget for large capital and resource costs, we determined in our economic and small business analysis (see section VI.C of this action) that 28 entities will incur costs associated with this rule and, of the 28 entities, nine of them are small based on the definition of the Small Business Administration. Of these nine small businesses, all are estimated to experience a negative cost (*i.e.*, a cost savings) as a result of the final rule. Therefore, we do not agree that more than a 2-year compliance period is necessary.

As a result of comments on the 2012 proposal, the final rule does not contain the 60-day approval period for OM&M plans. Therefore, the industry will have the full 180 days for compliance rather than a 120-day compliance period as was a concern of one commenter. The final rule retains the 2-year compliance period for those requirements listed in 40 CFR 63.1501(e). The final rule does not change the requirement that existing major sources conduct performance tests every 5 years.

The EPA disagrees that additional time is needed to comply with the changes related to SSM. The Court issued a decision on December 19, 2008, to vacate SSM provisions in the General Provisions. *Sierra Club* v. *EPA*, 551 F.3d 1019 (D.C. Cir. 2008). The EPA issued a letter on July 22, 2009, addressing the impact of the decision. The court mandate implementing the *Sierra Club* decision was issued on October 16, 2009, at which time the SSM provisions were clearly no longer in effect. As explained in the July 2009 memo, SSM provisions in specific subparts, such as those in Subpart RRR, were directly affected by the court decision. In addition, amendments to Subpart RRR were proposed on February 14, 2012, at which time secondary aluminum facilities were put on notice of the specific amendments to Subpart RRR in response to the Court's vacatur of the SSM provisions. Thus, facilities have had ample notice that the EPA would make the SSM rule changes. As a result, the SSM-related rule changes are effective upon promulgation of the final rule. See also discussion in section III.C of this preamble.

Comment: Two commenters on the 2012 proposal requested changes to the new hooding requirement in 40 CFR 63.1512(e)(4), requiring compliance ''at the next required performance test'' even if the test must be performed ''90 days from promulgation of the final rule'' [§ 63.1501(d)]. The commenters explained that this compliance deadline may be acceptable for facilities that are not required to conduct performance testing in the first few years following

promulgation of the final rule, but other facilities are on a testing cycle that would require testing soon after promulgation and these facilities may not have time to install hoods and/or modify operating practices within the allotted 90 days. The commenters stated that according to the NESHAP General Provisions, test protocols must be submitted 60 days before a compliance test, so facilities required to test early in 2013 would have as little as 30 days after the final rule to address the new hooding requirements and other requirements of the final rule before submitting a test plan. The commenters did not believe that this timeline is practicable or reasonable. The commenters requested the EPA to revise the compliance date for capture hoods on uncontrolled furnaces (in § 63.1512 (e)(4)) to say: ''three years after the final promulgation date or at the next required performance test, whichever date is later.''

Response: The EPA agrees with the commenters that the time available for owners or operators of facilities with performance testing required under 40 CFR 63.1512(e)(4) and occurring near the proposed 90-day compliance deadline would be insufficient. As described above, in the final rule the requirement to account for unmeasured emissions during uncontrolled group 1 furnace performance testing applies to testing beginning 2 years after publication of the final rule in the **Federal Register**. Therefore, a source with their next required performance test of an uncontrolled group 1 furnace occurring at least 2 years after promulgation would have to comply with the testing provisions in 40 CFR 63.1512(e)(4). A source with their next required performance test of an uncontrolled group 1 furnace occurring 1 year (or any period less than 2 years) after promulgation would not be required to do so until the subsequent performance test. As these amendments clarify existing requirements, and based on the lack of supporting information for the commenter's conclusory assertion that 2 years is insufficient, we do not agree that any of the revisions warrant an extension beyond 2 years to a 3-year compliance period.

4. What is the rationale for our final approach related to compliance dates?

The rationale for the compliance dates is provided in the preamble to the supplemental proposal and is re-iterated in the responses to comments in the previous section of this preamble. The final rule specifies the compliance dates for the new requirements. Compliance with the provisions listed in 40 CFR 63.1501(d) is required 180 days following publication of the final rule. Rule changes specified in § 63.1501(e)—furnace classification changes, HF testing and testing uncontrolled furnaces—require more time, and the final rule provides 2 years following publication of the final rule for compliance.

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

A. What are the affected sources?

We estimate that there are 161 secondary aluminum production facilities that will be affected by this final rule. We performed risk modeling for 155 of these sources (52 of the 53 major sources and 103 of the 108 area sources). Six facilities that are subject to the Secondary Aluminum NESHAP were not included in the risk assessment input modeling files. The facilities that were not included in the risk assessment input files included one major HAP source and five area HAP sources. The major HAP source was not included because the secondary aluminum equipment at the source consists of group 2 furnaces, for which the EPA did not have HAP emissions estimates. The five area sources were not included because they had no equipment subject to D/F emission standards, which are the only standards in the NESHAP applicable to area sources. We estimate that nine secondary aluminum facilities have co-located primary aluminum operations. The affected sources at secondary aluminum production facilities include new and existing scrap shredders, thermal chip dryers, scrap dryer/delacquering kiln/decoating kilns, group 2 furnaces, sweat furnaces, dross-only furnaces, rotary dross cooler and secondary aluminum processing units containing group 1 furnaces and in-line fluxers.

B. What are the air quality impacts?

The RTR analysis conducted for this rule does not support increasing the stringency of the numerical emissions limits. This final rule clarifies how uncontrolled furnaces are to conduct emissions testing, revises the monitoring requirements for annual inspection of capture/collection systems and makes other changes that correct and clarify rule requirements and provisions. These final amendments are not expected to achieve appreciable reductions in emissions, although the final requirements for testing uncontrolled furnaces could result in some unquantifiable emission reduction. Therefore, no quantifiable air quality impacts are expected. However, these final amendments will help to improve compliance, monitoring and implementation of the rule.

C. What are the cost impacts?

The total cost of the final amendments are the same as we described in the supplemental proposal. We conservatively estimate the total cost of the final amendments to be $1,711,000 per year (in 2011 dollars). However, depending on assumptions used for the costs for installing temporary hooding for uncontrolled furnaces, the estimate of total annualized costs could range from $611,000 to $2,871,000 per year. Our estimate for the source category includes an annualized cost of $1,200,000 to $3,460,000 for installing hooding that meets ACGIH guidelines for testing uncontrolled furnaces, assuming that 107 furnaces choose that option (rather than assuming an 80-percent capture efficiency for their existing furnace exhaust system). We believe that a number of these 107 furnaces will choose to apply the 80-percent assumption rather than install temporary hooding. Our estimates do not include deductions for the exclusion of existing round top furnaces as provided in the final rule. Therefore, these total cost estimates are considered conservative (more likely to be overestimates rather than underestimates) of the total costs to the industry. Our estimates of total costs also include an annualized cost of $11,000 for testing for HF on uncontrolled furnaces that are already testing for HCl. Finally, we estimate cost savings of $600,000 per year for furnaces that change furnace operating modes and turn off their control devices. Our estimate of savings is based on 50 furnaces turning off their controls for approximately 6 months every year. This savings reflects the cost of testing (to demonstrate these furnaces remain in compliance with emission limits) minus the savings realized from operating with the control devices turned off.

We estimate that 57 facilities will be affected and that the cost per facility ranges from negative $36,000 (a cost savings) per year for a facility changing furnace operating modes to $216,500 per year for a facility installing hooding for testing.

The estimated costs are explained further in the document titled, *Cost Estimate for Rule Changes to Secondary Aluminum NESHAP,* which is available in the docket for this action.

D. What are the economic impacts?

We performed an economic impact analysis for the amendments in this final rule. This analysis estimates impacts based on using annualized cost-to-sales ratios for affected firms. For the 28 parent firms affected by this final rule, the cost-to-sales estimate for each parent firm is less than 0.1 percent. For more information, please refer to the document titled, *Economic Impact Analysis for the Secondary Aluminum Supplemental Proposal,* which is available in the docket.

E. What are the benefits?

We do not anticipate any significant reductions in HAP emissions as a result of these final amendments. However, we think that they will help to improve the clarity of the rule, which can improve compliance and minimize emissions. Certain provisions also provide operational flexibility with no increase in HAP emissions.

F. What analysis of environmental justice did we conduct?

We did not conduct an assessment of risks to individual demographic groups for this rulemaking. However, we did conduct a proximity analysis for both area and major sources, which identifies any overrepresentation of minority, low income or indigenous populations near facilities in the source category. The results of the proximity analyses suggested there are a higher percentage of minorities, people with low income, and people without a high school diploma living near these facilities (*i.e.,* within 3 miles) compared to the national averages for these subpopulations. However, the risks due to HAP emissions from this source category are low for all populations (*e.g.,* inhalation cancer risks are less than 1-in-1 million for all populations and non-cancer HIs are less than 1). We note that we do not expect this final rule to achieve reductions in HAP emissions. We conclude that this rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not affect the level of protection provided to human health or the environment. However, the final rule will provide additional benefits to these and all demographic groups by improving the compliance, monitoring and implementation of the NESHAP.

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 it is not economically significant as defined in Executive Order 12866, and because the Agency does not believe the environmental health risks or safety risks addressed by this action present a disproportionate risk to children. The risk assessment report, *Residual Risk Assessment for the Secondary Aluminum Production Source Category in Support of the 2015 Risk and Technology Review Final Rule,* which is available in the docket, estimated that no one is exposed to an inhalation cancer risk at or above 1-in-1 million or a chronic noncancer TOSHI greater than one due to emissions from the source category. The *2015 Environmental Justice Screening Report for Secondary Aluminum Major Sources and the 2015 Environmental Justice Screening Report for Secondary Aluminum Area Sources,* also available in the docket, indicate the percentages for all demographic groups exposed to various risk levels, including children, are similar to their respective nationwide percentages. All groups are exposed to cancer risks below 1-in-1 million and HIs less than 1 due to inhalation exposure to HAP emissions from this source category.

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 requirements in this rule have been submitted for approval to the OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The information collection requirements are not enforceable until OMB approves them.

We are establishing new paperwork requirements for the Secondary Aluminum Production source category to improve enforcement of and compliance with 40 CFR part 63, subpart RRR. The new requirements are in the form of recordkeeping and reporting for furnace classification changes and recordkeeping with regard to verification of lime injection rates. New monitoring requirements include testing for HF, and testing related to furnace classification changes. The information requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which generally apply to all operators subject to Part 63 national emissions standards. These recordkeeping and reporting requirements 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.

We estimate 161 regulated entities are currently subject to Subpart RRR. The annual monitoring, reporting and recordkeeping burden for this collection (averaged over the first 3 years after the effective date of the rule) for these amendments to Subpart RRR is estimated to be $2,990,000 per year. This includes 1,694 labor hours per year at a total labor cost of $162,000 per year, and total non-labor capital and operation and maintenance (O&M) costs of $2,828,000 per year. The total burden for the federal government (averaged over the first 3 years after the effective date of the rule) is estimated to be 271 labor hours per year at an annual cost of $12,231. Burden is defined at 5 CFR 1320.3(b).

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 this ICR is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements 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 small businesses. We determined in the economic and small business analysis that, using the results from the cost memorandum, 28 entities will incur costs associated with the final rule. Of these 28 entities, nine of them are small. Of these nine, all of them are estimated to experience a negative cost (i.e., a cost savings) as a result of the final rule according to our analysis. For more information, please refer to the *Economic Impact Analysis for the Secondary Aluminum Supplemental*

Proposal, which is available in the docket.

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.

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 secondary aluminum production facilities 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 Secondary Aluminum Production Source Category in Support of the 2015 Risk and Technology Review Final Rule,* 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 (NTTAA) and 1 CFR Part 51

This final action involves technical standards. The EPA decided to allow the use of ASTM D7520–13, Standard Test Method for Determining the Opacity of a Plume in an Outdoor Ambient Atmosphere, approved December 1, 2013, as an acceptable alternative to EPA Method 9 to meet opacity measurement requirements and is incorporated by reference. The alternative ASTM method determines the opacity of a plume using digital imagery and associated hardware and software. The standard is available from the American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428–2959 or at their Web site, *http://www.astm.org.*

Under the original 2000 subpart RRR, the EPA already allows the use of EPA Methods 1, 2, 3, 4, 5, 9, 23, 25A and 26A of 40 CFR part 60, Appendix A. As a result of comments received on the 2012 proposal, EPA Method 26 was identified as a reasonable alternative to EPA Method 26A and EPA Method 204 was identified as a reasonable alternative method for EPA Methods 1 and 2. Method 26A is applicable for determining emissions of hydrogen halides and halogens from stationary sources. This method collects the emission sample isokinetically and is therefore particularly suited for sampling at sources, such as those controlled by wet scrubbers, emitting acid particulate matter. Method 204 is used to determine whether a permanent or temporary enclosure meets the criteria for a total enclosure. In this method, an enclosure is evaluated against a set of criteria, which, if met and all the exhaust gases from the enclosure are ducted to a control device, the capture efficiency is assumed to be 100 percent. The EPA agrees that EPA Methods 26 and 204 are acceptable alternatives for use in this rule. These methods are existing EPA test methods and are not voluntary consensus standards under NTTAA.

EPA–625/3–89–016, Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update, March 1989, U.S. Environmental Protection Agency, is a procedure for assessing the risks associated with exposures to complex mixtures of chlorinated dibenzo-p-dioxins and dibenzofurnas and relates the toxicity of the 210 structurally related chemical pollutants and is based on a limited data base of *in vivo* and *in vitro* toxicity testing. This method is incorporated by reference. The method is available from the National Technical Information Service, 5301 Shawnee Road, Alexandria, VA 22312, or at their Web site, *http://www.ntis.gov.*

For the design and installation of capture and collection systems, the EPA decided to allow the use of American Conference of Governmental Industrial Hygienists (ACGIH) *Industrial Ventilation: A Manual of Recommended Practice for Design,* 27th Edition, 2010 as an alternative to *Industrial Ventilation: A Manual of Recommended Practice,* 23rd Edition, 1998, Chapter 3, ''Local Exhaust Hoods'' and Chapter 5, ''Exhaust System Design Procedure.'' The manuals present information on design, maintenance and evaluation of industrial exhaust ventilation systems. The manuals are available from ACGIH, Customer Service Department, 1330 Kemper Meadow Drive, Cincinnati, Ohio 45240, telephone number (513) 742–2020.

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 believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low income, or indigenous populations because it does not affect the level of protection provided to human health or the environment. This final rule will not relax the emission limits on regulated sources and will not result in emissions increases. The results of this evaluation are contained in sections III.A, IV.A and V.F and V.G of this preamble.

Because our residual risk assessment determined that there was minimal residual risk associated with the emissions from facilities in this source category, a demographic risk analysis was not necessary for this category. However, the EPA did conduct a proximity analysis for both area and major sources. The results of these analyses are summarized in section IV.A of this preamble and in more detail in the *EJ Screening Report for Area Sources* and the *EJ Screening Report for Major Sources,* which are available in the docket for this rulemaking.

K. Congressional Review Act (CRA)

This action is subject to the CRA, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United

States. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 63

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

Dated: August 14, 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 by:
■ a. Redesignating paragraphs (b) through (r) as (c) through (s);
■ b. Adding new paragraph (b);
■ c. Revising newly redesignated paragraph (h)(87);
■ d. Redesignating newly redesignated paragraphs (m)(3) through (m)(20) as (m)(4) through (m)(21); and
■ e. Adding new paragraph (m)(3).

The additions and revisions read as follows:

§ 63.14 Incorporations by reference.

* * * * *

(b) American Conference of Governmental Industrial Hygienists (ACGIH), Customer Service Department, 1330 Kemper Meadow Drive, Cincinnati, Ohio 45240, telephone number (513) 742–2020.

(1) Industrial Ventilation: A Manual of Recommended Practice, 23rd Edition, 1998, Chapter 3, ''Local Exhaust Hoods'' and Chapter 5, ''Exhaust System Design Procedure.'' IBR approved for §§ 63.1503, 63.1506(c), 63.1512(e), Table 2 to Subpart RRR, Table 3 to Subpart RRR, and Appendix A to Subpart RRR.

(2) Industrial Ventilation: A Manual of Recommended Practice for Design, 27th Edition, 2010. IBR approved for §§ 63.1503, 63.1506(c), 63.1512(e), Table 2 to Subpart RRR, Table 3 to Subpart RRR, and Appendix A to Subpart RRR.

* * * * *

(h) * * *

(87) ASTM D7520–13, Standard Test Method for Determining the Opacity of a Plume in an Outdoor Ambient Atmosphere, approved December 1, 2013. IBR approved for §§ 63.1510(f), 63.1511(d), 63.1512(a), 63.1517(b) and 63.1625(b).

* * * * *

(m) * * *

(3) EPA–625/3–89–016, Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and –Dibenzofurans (CDDs and CDFs) and 1989 Update, March 1989. IBR approved for § 63.1513(d).

* * * * *

Subpart RRR—National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production

■ 3. Revise § 63.1501 to read as follows:

§ 63.1501 Dates.

(a) An affected source constructed before February 11, 1999, must comply with the requirements of this subpart by March 24, 2003, except as provided in paragraphs (b) and (c).

(b) The owner or operator of an affected source constructed before February 14, 2012, must comply with the following requirements of this subpart by March 16, 2016: § 63.1505(k) introductory text, (k)(1) through (k)(5), other than the emission standards for HF in (k)(2); § 63.1506 (a)(1), (c)(1), (g)(5), (k)(3), (m)(4), (m)(7), (n)(1); § 63.1510 (b)(5), (b)(9), (d)(2), (d)(3),(f)(1)(ii), (i)(4), (j)(4), (n)(1), (o)(1), (o)(1)(ii), (s)(2)(iv), (t) introductory text, (t)(2)(i), (t)(2)(ii), (t)(4), (t)(5); § 63.1511(a) introductory text, (b) introductory text, (b)(1), (b)(3), (b)(6), (c)(9), (g)(5); § 63.1512(e)(1), (e)(2), (e)(3), (h)(2), (j), (j)(1)(i), (j)(2)(i), (o) introductory text, (o)(1), (o)(3), (p)(2); § 63.1513 (b)(1), (e)(1), (e)(2), (e)(3), (f); § 63.1516 (b) introductory text, (b)(2)(vii), (b)(3)(i); § 63.1517(b)(1)(iii), (b)(4)(ii), (b)(14), (b)(19).

(c) The owner or operator of an affected source constructed before February 14, 2012, must comply with the following requirements of this subpart by September 18, 2017: § 63.1505(i)(4) and (k)(2) emission standards for HF; § 63.1512(e)(4) through (7) requirements for testing existing uncontrolled group 1 furnaces (that is, group 1 furnaces without add-on air pollution control devices); and § 63.1514 requirements for change of furnace classification.

(d) An affected source that commenced construction or reconstruction after February 11, 1999 but before February 14, 2012 must comply with the requirements of this subpart by March 24, 2000 or upon startup, whichever is later, except as provided in paragraphs (b), (c), (e), and (f) of this section.

(e) The owner or operator of an affected source that commences construction or reconstruction after February 14, 2012, must comply with all the requirements of this subpart by September 18, 2015 or upon startup, whichever is later.

(f) The owner or operator of any affected source which is constructed or reconstructed after February 11, 1999, but before February 14, 2012 at any existing aluminum die casting facility, aluminum foundry, or aluminum extrusion facility which otherwise meets the applicability criteria set forth in § 63.1500 must comply with the requirements of this subpart by March 24, 2003 or upon startup, whichever is later, except as provided in paragraphs (b) and (c) of this section. The owner or operator of any affected source which is constructed or reconstructed after February 14, 2012, at any existing aluminum die casting facility, aluminum foundry, or aluminum extrusion facility which otherwise meets the applicability criteria set forth in § 63.1500 must comply with the requirements by September 18, 2015 or upon startup, whichever is later.

§ 63.1502 [Removed and Reserved]

■ 4. Remove and reserve § 63.1502.

■ 5. Section 63.1503 is amended by:
■ a. Adding in alphabetical order a definition of ''ACGIH Guidelines'';
■ b. Revising the definition of ''aluminum scrap shredder'';
■ c. Adding in alphabetical order definitions of ''bale breaker'' and ''capture and collection system'';
■ d. Revising the definitions of ''clean charge,'' ''cover flux,'' ''Group 2 furnace,'' and ''HCl'';
■ e. Adding in alphabetical order a definition of ''HF'';
■ f. Revising the definition of ''residence time'';
■ g. Adding in alphabetical order a definition of ''round top furnace'';
■ h. Revising the definitions of ''scrap dryer/delacquering kiln/decoating kiln'' and ''secondary aluminum processing unit (SAPU)''; and
■ i. Adding in alphabetical order definitions of ''shutdown,'' ''startup,'' ''tap,'' and ''total reactive fluorine flux injection rate''.

The additions and revisions read as follows:

§ 63.1503 Definitions.

* * * * *

ACGIH Guidelines means chapters 3 and 5 of *Industrial Ventilation: A Manual of Recommended Practice* 23rd

edition or appropriate chapters of *Industrial Ventilation: A Manual of Recommended Practice for Design* 27th edition (incorporated by reference, see § 63.14).

* * * * *

Aluminum scrap shredder means a high speed or low speed unit that crushes, grinds, granulates, shears or breaks aluminum scrap into a more uniform size prior to processing or charging to a *scrap dryer/delacquering kiln/decoating kiln,* or furnace. A *bale breaker* is not an *aluminum scrap shredder.* Shearing and cutting operations performed at rolling mills and aluminum finishing operations (such as slitters) are not aluminum scrap shredders.

* * * * *

Bale breaker means a device used to break apart a bale of aluminum scrap for further processing. Bale breakers are not used to crush, grind, granulate, shear or break aluminum scrap into more uniform size pieces.

* * * * *

Capture and collection system means the system, including duct systems and fans, and, in some cases, hoods, used to collect a contaminant at or near its source, and for affected sources equipped with an air pollution control device, transport the contaminated air to the air cleaning device.

* * * * *

Clean charge means furnace charge materials, including molten aluminum; T-bar; sow; ingot; billet; pig; alloying elements; aluminum scrap known by the owner or operator to be entirely free of paints, coatings, and lubricants; uncoated/unpainted aluminum chips that have been thermally dried or treated by a centrifugal cleaner; aluminum scrap dried at 343 °C (650 °F) or higher; aluminum scrap delacquered/decoated at 482 °C (900 °F) or higher; and runaround scrap. Anodized aluminum that contains dyes or sealants containing organic compounds is not clean charge.

Cover flux means salt added to the surface of molten aluminum in a *group 1* or *group 2 furnace,* without surface agitation of the molten aluminum, for the purpose of preventing oxidation. Any flux added to a rotary furnace is not a cover flux.

* * * * *

Group 2 furnace means a furnace of any design that melts, holds, or processes only *clean charge* and that performs no *fluxing* or performs *fluxing* using only nonreactive, non-HAP-containing/non-HAP-generating gases or agents. Unheated pots, to which no flux is added and that are used to transport metal, are not furnaces.

HCl means hydrogen chloride.

HF means hydrogen fluoride.

* * * * *

Residence time means, for an *afterburner,* the duration of time required for gases to pass through the *afterburner* combustion zone. *Residence time* is calculated by dividing the *afterburner* combustion zone volume in cubic feet by the volumetric flow rate of the gas stream in actual cubic feet per second. The combustion zone volume includes the reaction chamber of the afterburner in which the waste gas stream is exposed to the direct combustion flame and the complete refractory lined portion of the furnace stack up to the measurement thermocouple.

* * * * *

Round top furnace means a cylindrically-shaped reverberatory furnace that has a top that is removed for charging and other furnace operations.

* * * * *

Scrap dryer/delacquering kiln/decoating kiln means a unit used primarily to remove various organic contaminants such as oil, paint, lacquer, ink, plastic, and/or rubber from *aluminum scrap* (including used beverage containers) prior to melting, or that separates aluminum foil from paper and plastic in scrap.

Secondary aluminum processing unit (SAPU). An existing SAPU means all existing group 1 furnaces and all existing in-line fluxers within a secondary aluminum production facility. Each existing group 1 furnace or existing in-line fluxer is considered an emission unit within a secondary aluminum processing unit. A new SAPU means any combination of individual group 1 furnaces and in-line fluxers within a secondary aluminum processing facility which either were constructed or reconstructed after February 11, 1999, or have been permanently redesignated as new emission units pursuant to § 63.1505(k)(6). Each of the group 1 furnaces or in-line fluxers within a new SAPU is considered an emission unit within that secondary aluminum processing unit. A secondary aluminum production facility may have more than one new SAPU.

* * * * *

Shutdown means the period of operation for thermal chip dryers, scrap dryers/delacquering kilns, decoating kilns, dross-only furnaces, group 1 furnaces, in-line fluxers, sweat furnaces and group 2 furnaces that begins when the introduction of feed/charge is intentionally halted, the source of heat to the emissions unit is turned off, and product has been removed from the emission unit to the greatest extent practicable (*e.g.,* by tapping a furnace). Shutdown ends when the emission unit is near ambient temperature.

* * * * *

Startup means the period of operation for thermal chip dryers, scrap dryers/delacquering kilns, decoating kilns, dross-only furnaces, group 1 furnaces, in-line fluxers, sweat furnaces and group 2 furnaces that begins with equipment warming from a shutdown, that is, the equipment is at or near ambient temperature. Startup ends at the point that flux or feed/charge is introduced.

* * * * *

Tap means the end of an operating cycle of any individual furnace when processed molten aluminum is poured from that furnace.

* * * * *

Total reactive fluorine flux injection rate means the sum of the total weight of fluorine in the gaseous or liquid reactive flux added to an uncontrolled group 1 furnace, and the total weight of fluorine in the solid reactive flux added to an uncontrolled group 1 furnace, divided by the total weight of feed/charge, as determined by the procedure in § 63.1512(o).

■ 6. Section 63.1505 is amended by revising paragraphs (a), (i)(4), (k) introductory text, (k)(1) through (3), and (k)(6) to read as follows:

§ 63.1505 Emission standards for affected sources and emission units.

(a) *Summary.* The owner or operator of a new or existing affected source must comply at all times with each applicable limit in this section, including periods of startup and shutdown. Table 1 to this subpart summarizes the emission standards for each type of source.

* * * * *

(i) * * *

(4) 0.20 kg of HF per Mg (0.40 lb of HF per ton) of feed/charge from an uncontrolled group 1 furnace and 0.20 kg of HCl per Mg (0.40 lb of HCl per ton) of feed/charge or, if the furnace is equipped with an add-on air pollution control device, 10 percent of the uncontrolled HCl emissions, by weight, for a group 1 furnace at a secondary aluminum production facility that is a major source.

* * * * *

(k) *Secondary aluminum processing unit.* The owner or operator must comply with the emission limits

calculated using the equations for PM, HCl and HF in paragraphs (k)(1) and (2) of this section for each secondary aluminum processing unit at a secondary aluminum production facility that is a major source. The owner or operator must comply with the emission limit calculated using the equation for D/F in paragraph (k)(3) of this section for each secondary aluminum processing unit at a secondary aluminum production facility that is a major or area source.

(1) The owner or operator must not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of PM in excess of:

$$L_{c_{PM}} = \frac{\sum_{i=1}^{n}\left(L_{ti_{PM}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad \text{(Eq. 1)}$$

Where:

L_{uiPM} = The PM emission limit for individual emission unit i in paragraph (i)(1) and (2) of this section for a group 1 furnace or in paragraph (j)(2) of this section for an in-line fluxer;

T_{ti} = The mass of feed/charge for 24 hours for individual emission unit i; and

L_{cPM} = The daily PM emission limit for the secondary aluminum processing unit which is used to calculate the 3-day, 24-hour PM emission limit applicable to the SAPU.

Note: In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the PM limit.

(2) The owner or operator must not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of HCl or HF in excess of:

$$L_{c_{HCl/HF}} = \frac{\sum_{i=1}^{n}\left(L_{ti_{HCl/HF}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad \text{(Eq. 2)}$$

Where:

$L_{uiHCl/HF}$ = The HCl emission limit for individual emission unit i in paragraph (i)(4) of this section for a group 1 furnace or in paragraph (j)(1) of this section for an in-line fluxer; or the HF emission limit for individual emission unit i in paragraph (i)(4) of this section for an uncontrolled group 1 furnace; and

$L_{cHCl/HF}$ = The daily HCl or HF emission limit for the secondary aluminum processing unit which is used to calculate the 3-day, 24-hour HCl or HF emission limit applicable to the SAPU.

Note: Only uncontrolled group 1 furnaces are included in this HF limit calculation. In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the HCl or HF limit.

(3) The owner or operator must not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of D/F in excess of:

$$L_{c_{D/F}} = \frac{\sum_{i=1}^{n}\left(L_{ti_{D/F}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad \text{(Eq. 3)}$$

Where:

$L_{uiD/F}$ = The D/F emission limit for individual emission unit i in paragraph (i)(3) of this section for a group 1 furnace; and

$L_{cD/F}$ = The daily D/F emission limit for the secondary aluminum processing unit which is used to calculate the 3-day, 24-hour D/F emission limit applicable to the SAPU.

Note: Clean charge furnaces cannot be included in this calculation since they are not subject to the D/F limit.

* * * * *

(6) With the prior approval of the permitting authority for major sources, or the Administrator for area sources, an owner or operator may redesignate any existing group 1 furnace or in-line fluxer at a secondary aluminum production facility as a new emission unit. Any emission unit so redesignated may thereafter be included in a new SAPU at that facility. Any such redesignation will be solely for the purpose of this NESHAP and will be irreversible.

■ 7. Section 63.1506 is amended by:
■ a. Revising paragraph (a)(1);
■ b. Adding paragraph (a)(5);
■ c. Revising paragraph (c)(1);
■ d. Adding paragraph (c)(4);
■ e. Revising paragraphs (g)(5), (k)(3), and (m)(4);
■ f. Adding paragraph (m)(7); and
■ g. Revising paragraph (n)(1).

The additions and revisions read as follows:

§ 63.1506 Operating requirements.

(a) *Summary.* (1) The owner or operator must operate all new and existing affected sources and control equipment according to the requirements in this section. The affected sources, and their associated control equipment, listed in § 63.1500(c)(1) through (4) of this subpart that are located at a secondary aluminum production facility that is an area source are subject to the operating requirements of paragraphs (b), (c), (d),

(f), (g), (h), (m), (n), and (p) of this section.

* * * * *

(5) At all times, the owner or operator 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 which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

* * * * *

(c) * * *

(1) Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates or facial inlet velocities as contained in the ACGIH Guidelines (incorporated by reference, see § 63.14);

* * * * *

(4) In lieu of paragraph (c)(1) of this section, the owner or operator of a sweat furnace may design, install and operate each sweat furnace in accordance with paragraphs (c)(4)(i) through (iii) of this section.

(i) As demonstrated by an annual negative air flow test conducted in accordance with § 63.1510(d)(3), air flow must be into the sweat furnace or towards the plane of the sweat furnace opening.

(ii) The owner or operator must maintain and operate the sweat furnace in a manner consistent with the good practices requirements for minimizing emissions, including unmeasured emissions, in paragraph (a)(5) of this section. Procedures that will minimize unmeasured emissions may include, but are not limited to the following:

(A) Increasing the exhaust rate from the furnace with draft fans, so as to capture emissions that might otherwise escape from the sweat furnace opening;

(B) Minimizing the time the sweat furnace doors are open;

(C) Keeping building doors and other openings closed to the greatest extent possible to minimize drafts that would divert emissions from being drawn into the sweat furnace;

(D) Maintaining burners on low-fire or pilot operation while the doors are open;

(E) Conducting periodic inspections and maintenance of sweat furnace components to ensure their proper operation and performance including but not limited to, door assemblies, seals, combustion chamber refractory material, afterburner and stack refractory, blowers, fans, dampers, burner tubes, door raise cables, pilot light assemblies, baffles, sweat furnace and afterburner shells and other internal structures.

(iii) The owner or operator must document in their operation, maintenance, and monitoring (OM&M) plan the procedures to be used to minimize emissions, including unmeasured emissions, in addition to the procedures to ensure the proper operation and maintenance of the sweat furnace.

* * * * *

(g) * * *

(5) For a continuous injection device, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at or above the level established during the performance test.

* * * * *

(k) * * *

(3) For a continuous injection system, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at or above the level established during the performance test.

* * * * *

(m) * * *

(4) For a continuous lime injection system, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at or above the level established during the performance test.

* * * * *

(7) The operation of capture/collection systems and control devices associated with natural gas-fired, propane-fired or electrically heated group 1 furnaces that will be idled for at least 24 hours after the furnace cycle has been completed may be temporarily stopped. Operation of these capture/collection systems and control devices must be restarted before feed/charge, flux or alloying materials are added to the furnace.

(n) * * *

(1) Maintain the total reactive chlorine flux injection rate and fluorine flux injection rate for each operating cycle or time period used in the performance test, at or below the average rate established during the performance test.

* * * * *

■ 8. Section 63.1510 is amended by:

■ a. Revising paragraphs (a), (b) introductory text, and (b)(5);

■ b. Adding paragraph (b)(9);

■ c. Revising paragraph (d)(2) introductory text;

■ d. Adding paragraphs (d)(2)(i) through (iv) and (d)(3);

■ e. Revising paragraphs (e) and (f)(1)(ii);

■ f. Adding paragraph (f)(4);

■ g. Revising paragraph (i)(3);

■ h. Adding paragraph (i)(4);

■ i. Revising paragraphs (j)(1)(ii), (j)(4), (n)(1) and (2), (o)(1), (s)(2)(iv), (s)(3), and (t) introductory text;

■ j. Adding paragraphs (t)(2)(i) through (iii); and

■ k. Revising paragraphs (t)(4) and (5).

The additions and revisions read as follows:

§ 63.1510 Monitoring requirements.

(a) *Summary.* The owner or operator of a new or existing affected source or emission unit must monitor all control equipment and processes according to the requirements in this section. Monitoring requirements for each type of affected source and emission unit are summarized in Table 3 to this subpart. Area sources are subject to monitoring requirements for those affected sources listed in § 63.1500(c)(1) through (4) of this subpart, and associated control equipment as required by paragraphs (b) through (k), (n) through (q), and (s) through (w) of this section, including but not limited to:

(1) The OM&M plan required in paragraph (b) of this section pertaining to each affected source listed in § 63.1500(c)(1) through (4) of this subpart,

(2) The labeling requirements described in paragraph (c) of this section pertaining to group 1 furnaces processing other than clean charge, and scrap dryer/delacquering kiln/decoating kilns,

(3) The requirements for capture and collection described in paragraph (d) of this section for each controlled affected source (*i.e.*, affected sources with an add-on air pollution control device), listed in § 63.1500(c)(1) through (4) of this subpart,

(4) The feed/charge weight monitoring requirements described in paragraph (e) of this section applicable to group 1 furnaces processing other than clean charge, scrap dryer/delacquering kiln/decoating kilns and thermal chip dryers,

(5) The bag leak detection system requirements described in paragraph (f) of this section applicable to all bag leak detection systems installed on fabric filters and lime injected fabric filters used to control each affected source listed in § 63.1500(c)(1)–(4) of this subpart,

(6) The requirements for afterburners described in paragraph (g) of this

section applicable to sweat furnaces, thermal chip dryers, and scrap dryer/delacquering kiln/decoating kilns,

(7) The requirements for monitoring fabric filter inlet temperature described in paragraph (h) of this section for all lime injected fabric filters used to control group 1 furnaces processing other than clean charge, sweat furnaces and scrap dryer/delacquering kiln/decoating kilns,

(8) The requirements for monitoring lime injection described in paragraph (i) of this section applicable to all lime injected fabric filters used to control emissions from group 1 furnaces processing other than clean charge, thermal chip dryers, sweat furnaces and scrap dryer/delacquering kiln/decoating kilns,

(9) The requirements for monitoring total reactive flux injection described in paragraph (j) of this section for all group 1 furnaces processing other than clean charge,

(10) The requirements described in paragraph (k) of this section for thermal chip dryers,

(11) The requirements described in paragraph (n) of this section for controlled group 1 sidewell furnaces processing other than clean charge,

(12) The requirements described in paragraph (o) of this section for uncontrolled group 1 sidewell furnaces processing other than clean charge,

(13) The requirements described in paragraph (p) of this section for scrap inspection programs for uncontrolled group 1 furnaces,

(14) The requirements described in paragraph (q) of this section for monitoring scrap contamination level for uncontrolled group 1 furnaces,

(15) The requirements described in paragraph (s) of this section for secondary aluminum processing units, limited to compliance with limits for emissions of D/F from group 1 furnaces processing other than clean charge,

(16) The requirements described in paragraph (t) of this section for secondary aluminum processing units limited to compliance with limits for emissions of D/F from group 1 furnaces processing other than clean charge,

(17) The requirements described in paragraph (u) of this section for secondary aluminum processing units limited to compliance with limits for emissions of D/F from group 1 furnaces processing other than clean charge,

(18) The requirements described in paragraph (v) of this section for alternative lime addition monitoring methods applicable to lime-injected fabric filters used to control emissions from group 1 furnaces processing other than clean charge, thermal chip dryers, sweat furnaces and scrap dryer/delacquering kiln/decoating kilns, and

(19) The requirements described in paragraph (w) of this section for approval of alternate methods for monitoring group 1 furnaces processing other than clean charge, thermal chip dryers, scrap dryer/delacquering kiln/decoating kilns and sweat furnaces and associated control devices for the control of D/F emissions.

(b) *Operation, maintenance, and monitoring (OM&M) plan.* The owner or operator must prepare and implement for each new or existing affected source and emission unit, a written OM&M plan. The owner or operator of an existing affected source must submit the OM&M plan to the permitting authority for major sources, or the Administrator for area sources no later than the compliance date established by § 63.1501(a). The owner or operator of any new affected source must submit the OM&M plan to the permitting authority for major sources, or the Administrator for area sources within 90 days after a successful initial performance test under § 63.1511(b), or within 90 days after the compliance date established by § 63.1501(b) if no initial performance test is required. The plan must be accompanied by a written certification by the owner or operator that the OM&M plan satisfies all requirements of this section and is otherwise consistent with the requirements of this subpart. The owner or operator must comply with all of the provisions of the OM&M plan as submitted to the permitting authority for major sources, or the Administrator for area sources, unless and until the plan is revised in accordance with the following procedures. If the permitting authority for major sources, or the Administrator for area sources determines at any time after receipt of the OM&M plan that any revisions of the plan are necessary to satisfy the requirements of this section or this subpart, the owner or operator must promptly make all necessary revisions and resubmit the revised plan. If the owner or operator determines that any other revisions of the OM&M plan are necessary, such revisions will not become effective until the owner or operator submits a description of the changes and a revised plan incorporating them to the permitting authority for major sources, or the Administrator for area sources. Each plan must contain the following information:

* * * * *

(5) Procedures for monitoring process and control device parameters, including lime injection rates, procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used.

* * * * *

(9) Procedures to be followed when changing furnace classifications under the provisions of § 63.1514.

* * * * *

(d) * * *

(2) Inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in § 63.1506(c) and record the results of each inspection. This inspection shall include a volumetric flow rate measurement taken at a location in the ductwork downstream of the hoods that is representative of the actual volumetric flow rate without interference due to leaks, ambient air added for cooling or ducts from other hoods. The flow rate measurement must be performed in accordance with paragraphs (d)(2)(i), (ii), or (iii) of this section. As an alternative to the flow rate measurement specified in this paragraph, the inspection may satisfy the requirements of this paragraph, including the operating requirements in § 63.1506(c), by including permanent total enclosure verification in accordance with paragraph (d)(2)(i) or (iv) of this section. Inspections that fail to successfully demonstrate that the requirements of § 63.1506(c) are met, must be followed by repair or adjustment to the system operating conditions and a follow up inspection within 45 days to demonstrate that § 63.1506(c) requirements are fully met.

(i) Conduct annual flow rate measurements using EPA Methods 1 and 2 in Appendix A to 40 CFR part 60, or conduct annual verification of a permanent total enclosure using EPA Method 204; or you may follow one of the three alternate procedures described in paragraphs (ii), (iii), or (iv) of this section to maintain system operations in accordance with an operating limit established during the performance test. The operating limit is determined as the average reading of a parametric monitoring instrument (Magnehelic®, manometer, anemometer, or other parametric monitoring instrument) and technique as described in paragraphs (d)(2)(ii), (iii), and (iv) of this section. A deviation, as defined in paragraphs (ii), (iii), and (iv) of this section, from the parametric monitoring operating limit requires the owner or operator to make

repairs or adjustments to restore normal operation within 45 days.

(ii) As an alternative to annual flow rate measurements using EPA Methods 1 and 2, measurement with EPA Methods 1 and 2 can be performed once every 5 years, provided that:

(A) A flow rate indicator consisting of a pitot tube and differential pressure gauge (Magnehelic®, manometer or other differential pressure gauge) is installed with the pitot tube tip located at a representative point of the duct proximate to the location of the Methods 1 and 2 measurement site; and

(B) The flow rate indicator is installed and operated in accordance with the manufacturer's specifications; and

(C) The differential pressure is recorded during the Method 2 performance test series; and

(D) Daily differential pressure readings are made by taking three measurements with at least 5 minutes between each measurement and averaging the three measurements; and readings are recorded daily and maintained at or above 90 percent of the average pressure differential indicated by the flow rate indicator during the most recent Method 2 performance test series; and

(E) An inspection of the pitot tube and associated lines for damage, plugging, leakage and operational integrity is conducted at least once per year; or

(iii) As an alternative to annual flow rate measurements using EPA Methods 1 and 2, measurement with EPA Methods 1 and 2 can be performed once every 5 years, provided that:

(A) Daily measurements of the capture and collection system's fan revolutions per minute (RPM) or fan motor amperage (amps) are made by taking three measurements with at least 5 minutes between each measurement, and averaging the three measurements; and readings are recorded daily and maintained at or above 90 percent of the average RPM or amps measured during the most recent Method 2 performance test series; or

(B) A static pressure measurement device is installed in the duct immediately downstream of the hood exit, and daily pressure readings are made by taking three measurements with at least 5 minutes between each measurement, and averaging the three measurements; and readings are recorded daily and maintained at 90 percent or better of the average vacuum recorded during the most recent Method 2 performance test series; or

(C) A hotwire anemometer, ultrasonic flow meter, cross-duct pressure differential sensor, venturi pressure differential monitoring or orifice plate equipped with an associated thermocouple and automated data logging software and associated hardware is installed; and daily readings are made by taking three measurements with at least 5 minutes between each measurement, and averaging the three measurements; and readings are recorded daily and maintained at 90 percent or greater of the average readings during the most recent Method 2 performance test series; or

(D) For booth-type hoods, hotwire anemometer measurements of hood face velocity are performed simultaneously with EPA Method 1 and 2 measurements, and the annual hood face velocity measurements confirm that the enclosure draft is maintained at 90 percent or greater of the average readings during the most recent Method 2 performance test series. Daily readings are made by taking three measurements with at least 5 minutes between each measurement, and averaging the three measurements; and readings are recorded daily and maintained at 90 percent or greater of the average readings during the most recent Method 1 and 2 performance test series.

(iv) As an alternative to the annual verification of a permanent total enclosure using EPA Method 204, verification can be performed once every 5 years, provided that:

(A) Negative pressure in the enclosure is directly monitored by a pressure indicator installed at a representative location;

(B) Pressure readings are recorded daily or the system is interlocked to halt material feed should the system not operate under negative pressure;

(C) An inspection of the pressure indicator for damage and operational integrity is conducted at least once per calendar year.

(3) For sweat furnaces, in lieu of paragraph (d)(2) of this section, the owner or operator of a sweat furnace may inspect each sweat furnace at least once each calendar year to ensure that they are being operated in accordance with the negative air flow requirements in § 63.1506(c)(4). The owner or operator of a sweat furnace must demonstrate negative air flow into the sweat furnace in accordance with paragraphs (d)(3)(i) through (iii) of this section.

(i) Perform an annual visual smoke test to demonstrate airflow into the sweat furnace or towards the plane of the sweat furnace opening;

(ii) Perform the smoke test using a smoke source, such as a smoke tube, smoke stick, smoke cartridge, smoke candle or other smoke source that produces a persistent and neutral buoyancy aerosol; and

(iii) Perform the visual smoke test at a safe distance from and near the center of the sweat furnace opening.

(e) *Feed/charge weight.* The owner or operator of an affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or μg/Mg (gr/ton) of feed/charge must install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, the affected source or emission unit over the same operating cycle or time period used in the performance test. Feed/charge or aluminum production within SAPUs must be measured and recorded on an emission unit-by-emission unit basis. As an alternative to a measurement device, the owner or operator may use a procedure acceptable to the permitting authority for major sources, or the Administrator for area sources to determine the total weight of feed/charge or aluminum production to the affected source or emission unit.

* * * * *

(f) * * *

(1) * * *

(ii) Each bag leak detection system must be installed, calibrated, operated, and maintained according to the manufacturer's operating instructions.

* * * * *

(4) As an alternative to the requirements of paragraph (f)(3) of this section, the owner or operator of a new or existing aluminum scrap shredder may measure the opacity of the emissions discharged through a stack or stacks using ASTM Method D7520–13 (incorporated by reference, see § 63.14) subject to the requirements of paragraphs § 63.1510(f)(4)(i) through (iv) of this section. Each test must consist of five 6-minute observations in a 30-minute period.

(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 that 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 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 on any one reading and the average error must not exceed 7.5 percent opacity.

* * * * *

(i) * * *

(3) An owner or operator who intermittently adds lime to a lime-injected fabric filter must obtain approval from the permitting authority for major sources, or the Administrator for area sources for a lime addition monitoring procedure. The permitting authority for major sources, or the Administrator for area sources will not approve a monitoring procedure unless data and information are submitted establishing that the procedure is adequate to ensure that relevant emission standards will be met on a continuous basis.

(4) At least once per month, verify that the lime injection rate in pounds per hour (lb/hr) is no less than 90 percent of the lime injection rate used to demonstrate compliance during your most recent performance test. If the monthly check of the lime injection rate is below the 90 percent, the owner or operator must repair or adjust the lime injection system to restore normal operation within 45 days. The owner or operator may request from the permitting authority for major sources, or the Administrator for area sources, an extension of up to an additional 45 days to demonstrate that the lime injection rate is no less than 90 percent of the lime injection rate used to demonstrate compliance during the most recent performance test. In the event that a lime feeder is repaired or replaced, the feeder must be calibrated, and the feed rate must be restored to the lb/hr feed rate operating limit established during the most recent performance test within 45 days. The owner or operator may request from the permitting authority for major sources, or the Administrator for area sources, an extension of up to an additional 45 days to complete the repair or replacement and establishing a new setting. The repair or replacement, and the establishment of the new feeder setting(s) must be documented in accordance with the recordkeeping requirements of § 63.1517.

(j) * * *

(1) * * *

(ii) The accuracy of the weight measurement device must be ±1 percent of the weight of the reactive component of the flux being measured. The owner or operator may apply to the permitting authority for major sources, or the Administrator for area sources for permission to use a weight measurement device of alternative accuracy in cases where the reactive flux flow rates are so low as to make the use of a weight measurement device of ±1 percent impracticable. A device of alternative accuracy will not be approved unless the owner or operator provides assurance through data and information that the affected source will meet the relevant emission standards.

* * * * *

(4) Calculate and record the total reactive flux injection rate for each operating cycle or time period used in the performance test using the procedure in § 63.1512(o). For solid flux that is added intermittently, record the amount added for each operating cycle or time period used in the performance test using the procedures in § 63.1512(o).

* * * * *

(n) * * *

(1) Record in an operating log for each tap of a sidewell furnace whether the level of molten metal was above the top of the passage between the sidewell and hearth during reactive flux injection, unless the furnace hearth was also equipped with an add-on control device. If visual inspection of the molten metal level is not possible, the molten metal level must be determined using physical measurement methods.

(2) Submit a certification of compliance with the operational standards in § 63.1506(m)(6) for each 6-month reporting period. Each certification must contain the information in § 63.1516(b)(2)(iii).

(o) * * *

(1) The owner or operator must develop, in consultation with the permitting authority for major sources, or the Administrator for area sources, a written site-specific monitoring plan. The site-specific monitoring plan must be submitted to the permitting authority for major sources, or the Administrator for area sources as part of the OM&M plan. The site-specific monitoring plan must contain sufficient procedures to ensure continuing compliance with all applicable emission limits and must demonstrate, based on documented test results, the relationship between emissions of PM, HCl, and D/F (and HF for uncontrolled group 1 furnaces), and the proposed monitoring parameters for each pollutant. Test data must establish the highest level of PM, HCl, and D/F (and HF for uncontrolled group 1 furnaces) that will be emitted from the furnace in accordance with § 63.1511(b)(1). If the permitting authority for major sources, or the Administrator for area sources determines that any revisions of the site-specific monitoring plan are necessary to meet the requirements of this section or this subpart, the owner or operator must promptly make all necessary revisions and resubmit the revised plan.

(i) The owner or operator of an existing affected source must submit the site-specific monitoring plan to the permitting authority for major sources, or the Administrator for area sources for review at least 6 months prior to the compliance date.

(ii) The permitting authority for major sources, or the Administrator for area sources will review and approve or disapprove a proposed plan, or request changes to a plan, based on whether the plan contains sufficient provisions to ensure continuing compliance with applicable emission limits and demonstrates, based on documented test results, the relationship between emissions of PM, HCl, and D/F (and HF for uncontrolled group 1 furnaces) and the proposed monitoring parameters for each pollutant. Test data must establish the highest level of PM, HCl, and D/F (and HF for uncontrolled group 1 furnaces) that will be emitted from the furnace. Subject to approval of the OM&M plan, the highest levels may be determined by conducting performance tests and monitoring operating parameters in accordance with § 63.1511(b)(1).

* * * * *

(s) * * *

(2) * * *

(iv) The inclusion of any periods of startup or shutdown in emission calculations.

(3) To revise the SAPU compliance provisions within the OM&M plan prior to the end of the permit term, the owner or operator must submit a request to the permitting authority for major sources, or the Administrator for area sources containing the information required by paragraph (s)(1) of this section and obtain approval of the permitting authority for major sources, or the Administrator for area sources prior to implementing any revisions.

(t) *Secondary aluminum processing unit.* Except as provided in paragraph (u) of this section, the owner or operator must calculate and record the 3-day, 24-hour rolling average emissions of PM,

HCl, and D/F (and HF for uncontrolled group 1 furnaces) for each secondary aluminum processing unit on a daily basis. To calculate the 3-day, 24-hour rolling average, the owner or operator must:

* * * * *

(2) * * *

(i) Where no performance test has been conducted, for a particular emission unit, because the owner of operator has, with the approval of the permitting authority for major sources, or the Administrator for area sources, chosen to determine the emission rate of an emission unit by testing a representative unit, in accordance with § 63.1511(f), the owner or operator shall use the emission rate determined from the representative unit in the SAPU emission rate calculation required in § 63.1510(t)(4).

(ii) Except as provided in paragraph (t)(2)(iii) of this section, if the owner or operator has not conducted performance tests for HCl (and HF for an uncontrolled group 1 furnace) or for HCl for an in-line fluxer, in accordance with the provisions of § 63.1512(d)(3), (e)(3), or (h)(2), the calculation required in § 63.1510(t)(4) to determine SAPU-wide HCl and HF emissions shall be made under the assumption that all chlorine contained in reactive flux added to the emission unit is emitted as HCl and all fluorine contained in reactive flux added to the emission unit is emitted as HF.

(iii) Prior to the date by which the initial performance test for HF emissions from uncontrolled group 1 furnaces is conducted, or is required to be conducted, the calculation required in § 63.1505(k) to determine the SAPU-wide HF emission limit and the calculation required in § 63.1510(t)(4) to determine the SAPU-wide HF emission rate must exclude HF emissions from untested uncontrolled group 1 furnaces and feed/charge processed in untested uncontrolled group 1 furnaces.

* * * * *

(4) Compute the 24-hour daily emission rate using Equation 4:

$$E_{day} = \frac{\sum_{i=1}^{n} (T_i \times ER_i)}{\sum_{i=1}^{n} T_i} \qquad \text{(Eq. 4)}$$

Where:

E_{day} = The daily PM, HCl, and D/F (and HF for uncontrolled group 1 furnaces) emission rate for the secondary aluminum processing unit for the 24-hour period;

T_i = The total amount of feed, or aluminum produced, for emission unit i for the 24-hour period (tons or Mg);

ER_i = The measured emission rate for emission unit i as determined in the performance test (lb/ton or µg/Mg of feed/charge); and

n = The number of emission units in the secondary aluminum processing unit.

(5) Calculate and record the 3-day, 24-hour rolling average for each pollutant each day by summing the daily emission rates for each pollutant over the 3 most recent consecutive days and dividing by 3. The SAPU is in compliance with an applicable emission limit if the 3-day, 24-hour rolling average for each pollutant is no greater than the applicable SAPU emission limit determined in accordance with § 63.1505(k)(1)–(3).

* * * * *

■ 9. Section 63.1511 is amended by:
■ a. Revising paragraphs (a), (b) introductory text, and (b)(1) and (3);
■ b. Adding paragraphs (b)(6) and (7);
■ c. Revising paragraphs (c)(9), (d), and (f) introductory text;
■ d. Adding paragraph (f)(6);
■ e. Revising paragraph (g) introductory text;
■ f. Adding paragraph (g)(5); and
■ g. Revising paragraph (i) introductory text.

The additions and revisions read as follows:

§ 63.1511 Performance test/compliance demonstration general requirements.

(a) *Site-specific test plan.* Prior to conducting any performance test required by this subpart, the owner or operator must prepare a site-specific test plan which satisfies all of the rule requirements, and must obtain approval of the plan pursuant to the procedures set forth in § 63.7. Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance of the affected source for the period being tested. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(b) *Initial performance test.* Following approval of the site-specific test plan, the owner or operator must demonstrate initial compliance with each applicable emission, equipment, work practice, or operational standard for each affected source and emission unit, and report the results in the notification of compliance status report as described in § 63.1515(b). The owner or operator of any affected source constructed before February 14, 2012, for which an initial performance test is required to demonstrate compliance must conduct this initial performance test no later than the date for compliance established by § 63.1501(a), (b), or (c). The owner or operator of any affected source constructed after February 14, 2012, for which an initial performance test is required must conduct this initial performance test within 180 days after the date for compliance established by § 63.1501(e) or (f). Except for the date by which the performance test must be conducted, the owner or operator must conduct each performance test in accordance with the requirements and procedures set forth in § 63.7(c). Owners or operators of affected sources located at facilities which are area sources are subject only to those performance testing requirements pertaining to D/F. Owners or operators of sweat furnaces meeting the specifications of § 63.1505(f)(1) are not required to conduct a performance test.

(1) The performance tests must be conducted under representative conditions expected to produce the highest level of HAP emissions expressed in the units of the emission standards for the HAP (considering the extent of feed/charge contamination, reactive flux addition rate and feed/charge rate). If a single test condition is not expected to produce the highest level of emissions for all HAP, testing under two or more sets of conditions (for example high contamination at low feed/charge rate, and low contamination at high feed/charge rate) may be required. Any subsequent performance tests for the purposes of establishing new or revised parametric limits shall be allowed upon pre-approval from the permitting authority for major sources, or the Administrator for area sources. These new parametric settings shall be

used to demonstrate compliance for the period being tested.

* * * * *

(3) Each performance test for a batch process must consist of three separate runs; pollutant sampling for each run must be conducted over the entire process operating cycle. Additionally, for batch processes where the length of the process operating cycle is not known in advance, and where isokinetic sampling must be conducted based on the procedures in Method 5 in appendix A to part 60, use the following procedure to ensure that sampling is conducted over the entire process operating cycle:

(i) Choose a minimum operating cycle length and begin sampling assuming this minimum length will be the run time (*e.g.*, if the process operating cycle is known to last from four to six hours, then assume a sampling time of four hours and divide the sampling time evenly between the required number of traverse points);

(ii) After each traverse point has been sampled once, begin sampling each point again for the same time per point, in the reverse order, until the operating cycle is complete. All traverse points as required by Method 1 of appendix A to part 60, must be sampled at least once during each test run;

(iii) In order to distribute the sampling time most evenly over all the traverse points, do not perform all runs using the same sampling point order (*e.g.*, if there are four ports and sampling for run 1 began in port 1, then sampling for run 2 could begin in port 4 and continue in reverse order.)

* * * * *

(6) Apply paragraphs (b)(1) through (5) of this section for each pollutant separately if a different production rate, charge material or, if applicable, reactive fluxing rate would apply and thereby result in a higher expected emissions rate for that pollutant.

(7) The owner or operator may not conduct performance tests during periods of malfunction.

(c) * * *

(9) Method 26A for the concentration of HCl and HF. Method 26 may also be used, except at sources where entrained water droplets are present in the emission stream. Where a lime-injected fabric filter is used as the control device to comply with the 90 percent reduction standard, the owner or operator must measure the fabric filter inlet concentration of HCl at a point before lime is introduced to the system.

(d) *Alternative methods.* The owner or operator may use alternative test methods as provided in paragraphs (d)(1) through (3) of this section.

(1) The owner or operator may use test method ASTM D7520–13 as an alternative to EPA Method 9 subject to conditions described in § 63.1510(f)(4).

(2) In lieu of conducting the annual flow rate measurements using Methods 1 and 2, the owner or operator may use Method 204 in Appendix M to 40 CFR part 51 to conduct annual verification of a permanent total enclosure for the affected source/emission unit.

(3) The owner or operator may use an alternative test method approved by the Administrator.

* * * * *

(f) *Testing of representative emission units.* With the prior approval of the permitting authority for major sources, or the Administrator for area sources, an owner or operator may utilize emission rates obtained by testing a particular type of group 1 furnace that does not have an add-on air pollution control device, or by testing an in-line flux box that does not have an add-on air pollution control device, to determine the emission rate for other units of the same type at the same facility. Such emission test results may only be considered to be representative of other units if all of the following criteria are satisfied:

* * * * *

(6) All 3 separate runs of a performance test must be conducted on the same emission unit.

(g) *Establishment of monitoring and operating parameter values.* The owner or operator of new or existing affected sources and emission units must establish a minimum or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by § 63.1510 that ensures compliance with the applicable emission limit or standard. To establish the minimum or maximum value or range, the owner or operator must use the appropriate procedures in this section and submit the information required by § 63.1515(b)(4) in the notification of compliance status report. The owner or operator may use existing data in addition to the results of performance tests to establish operating parameter values for compliance monitoring provided each of the following conditions are met to the satisfaction of the permitting authority for major sources, or the Administrator for area sources:

* * * * *

(5) If the owner or operator wants to conduct a new performance test and establish different operating parameter values, they must submit a revised site specific test plan and receive approval in accordance with paragraph (a) of this section. In addition, if an owner or operator wants to use existing data in addition to the results of the new performance test to establish operating parameter values, they must meet the requirements in paragraphs (g)(1) through (4) of this section.

* * * * *

(i) Testing of commonly-ducted units not within a secondary aluminum processing unit. With the prior approval of the permitting authority for major sources, or the Administrator for area sources, an owner or operator may do combined performance testing of two or more individual affected sources or emission units which are not included in a single existing SAPU or new SAPU, but whose emissions are manifolded to a single control device. Any such performance testing of commonly-ducted units must satisfy the following basic requirements:

* * * * *

■ 10. Section 63.1512 is amended by:

■ a. Revising paragraphs (a), (e)(1) through (3);

■ b. Adding paragraphs (e)(4) through (7); and

■ c. Revising paragrpahs (h)(2), (j) introductory text, (j)(1)(i), (j)(2)(i), (o) introductory text, (o)(1), (o)(3) through (5), and (p)(2).

The additions and revisions read as follows:

§ 63.1512 Performance test/compliance demonstration requirements and procedures.

(a) *Aluminum scrap shredder.* The owner or operator must conduct performance tests to measure PM emissions at the outlet of the control system. If visible emission observation is the selected monitoring option, the owner or operator must record visible emission observations from each exhaust stack for all consecutive 6-minute periods during the PM emission test according to the requirements of Method 9 in appendix A to 40 CFR part 60. If emissions observations by ASTM Method D7520–13 (incorporated by reference, see § 63.14) is the selected monitoring option, the owner or operator must record opacity observations from each exhaust stack for all consecutive 6-minute periods during the PM emission test.

* * * * *

(e) * * *

(1) If the group 1 furnace processes other than clean charge material, the owner or operator must conduct emission tests to measure emissions of PM, HCl, HF, and D/F at the furnace exhaust outlet.

(2) If the group 1 furnace processes only clean charge, the owner or operator must conduct emission tests to simultaneously measure emissions of PM, HCl and HF. A D/F test is not required. Each test must be conducted while the group 1 furnace (including a melting/holding furnace) processes only clean charge.

(3) The owner or operator may choose to determine the rate of reactive flux addition to the group 1 furnace and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all chlorine and fluorine contained in reactive flux added to the group 1 furnace is emitted as HCl and HF. Under these circumstances, the owner or operator is not required to conduct an emission test for HCl or HF.

(4) When testing an existing uncontrolled furnace, the owner or operator must comply with the requirements of either paragraphs (e)(4)(i), (ii) or (iii) of this section at the next required performance test required by § 63.1511(e).

(i) Install hooding that meets ACGIH Guidelines (incorporated by reference, see § 63.14), or

(ii) At least 180 days prior to testing petition the permitting authority for major sources, or the Administrator for area sources, that such hoods are impractical under the provisions of paragraph (e)(6) of this section and propose testing procedures that will minimize unmeasured emissions during the performance test according to the paragraph (e)(7) of this section, or

(iii) Assume an 80-percent capture efficiency for the furnace exhaust (i.e., multiply emissions measured at the furnace exhaust outlet by 1.25). If the source fails to demonstrate compliance using the 80-percent capture efficiency assumption, the owner or operator must re-test with a hood that meets the ACGIH Guidelines within 180 days, or petition the permitting authority for major sources, or the Administrator for area sources, within 180 days that such hoods are impractical under the provisions of paragraph (e)(6) of this section and propose testing procedures that will minimize unmeasured emissions during the performance test according to paragraph (e)(7) of this section.

(iv) The 80-percent capture efficiency assumption is not applicable in the event of testing conducted under an approved petition submitted pursuant to paragraphs (e)(4)(ii) or (iii) of this section.

(v) Round top furnaces constructed before February 14, 2012, and reconstructed round top furnaces are exempt from the requirements of paragraphs (e)(4)(i) and (ii) of this section. Round top furnaces must be operated to minimize unmeasured emissions according to paragraph (e)(7) of this section.

(5) When testing a new uncontrolled furnace constructed after February 14, 2012, the owner or operator must install hooding that meets ACGIH Guidelines (incorporated by reference, see § 63.14) or petition the permitting authority for major sources, or the Administrator for area sources, that such hoods are impracticable under the provisions of paragraph (e)(6) of this section and propose testing procedures that will minimize unmeasured emissions during the performance test according to the provisions of paragraph (e)(7).

(6) The installation of hooding that meets ACGIH Guidelines (incorporated by reference, see § 63.14) is considered impractical if any of the following conditions exist:

(i) Building or equipment obstructions (for example, wall, ceiling, roof, structural beams, utilities, overhead crane or other obstructions) are present such that the temporary hood cannot be located consistent with acceptable hood design and installation practices;

(ii) Space limitations or work area constraints exist such that the temporary hood cannot be supported or located to prevent interference with normal furnace operations or avoid unsafe working conditions for the furnace operator; or

(iii) Other obstructions and limitations subject to agreement of the permitting authority for major sources, or the Administrator for area sources.

(7) Testing procedures that will minimize unmeasured emissions may include, but are not limited to the following:

(i) Installing a hood that does not entirely meet ACGIH guidelines;

(ii) Using the building as an enclosure, and measuring emissions exhausted from the building if there are no other furnaces or other significant sources in the building of the pollutants to be measured;

(iii) Installing temporary baffles on those sides or top of furnace opening if it is practical to do so where they will not interfere with material handling or with the furnace door opening and closing;

(iv) Minimizing the time the furnace doors are open or the top is off;

(v) Delaying gaseous reactive fluxing until charging doors are closed and, for round top furnaces, until the top is on;

(vi) Agitating or stirring molten metal as soon as practicable after salt flux addition and closing doors as soon as possible after solid fluxing operations, including mixing and dross removal;

(vii) Keeping building doors and other openings closed to the greatest extent possible to minimize drafts that would divert emissions from being drawn into the furnace;

(viii) Maintaining burners on low-fire or pilot operation while the doors are open or the top is off;

(ix) Use of fans or other device to direct flow into a furnace when door is open; or

(x) Removing the furnace cover one time in order to add a smaller but representative charge and then replacing the cover.

* * * * *

(h) * * *

(2) The owner or operator may choose to limit the rate at which reactive flux is added to an in-line fluxer and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all chlorine in the reactive flux added to the in-line fluxer is emitted as HCl. Under these circumstances, the owner or operator is not required to conduct an emission test for HCl. If the owner or operator of any in-line flux box that has no ventilation ductwork manifolded to any outlet or emission control device chooses to demonstrate compliance with the emission limits for HCl by limiting use of reactive flux and assuming that all chlorine in the flux is emitted as HCl, compliance with the HCl limit shall also constitute compliance with the emission limit for PM and no separate emission test for PM is required. In this case, the owner or operator of the unvented in-line flux box must use the maximum permissible PM emission rate for the in-line flux boxes when determining the total emissions for any SAPU which includes the flux box.

* * * * *

(j) *Secondary aluminum processing unit.* The owner or operator must conduct performance tests as described in paragraphs (j)(1) through (3) of this section. The results of the performance tests are used to establish emission rates in lb/ton of feed/charge for PM, HCl and HF and μg TEQ/Mg of feed/charge for D/F emissions from each emission unit. These emission rates are used for compliance monitoring in the calculation of the 3-day, 24-hour rolling average emission rates using the equation in § 63.1510(t). A performance test is required for:

(1) * * *

(i) Emissions of HF and HCl (for determining the emission limit); or

* * * * *

(2) * * *

(i) Emissions of HF and HCl (for determining the emission limit); or

* * * * *

(o) *Flux injection rate.* The owner or operator must use these procedures to establish an operating parameter value or range for the total reactive chlorine flux injection rate and, for uncontrolled furnaces, the total reactive fluorine flux injection rate.

(1) Continuously measure and record the weight of gaseous or liquid reactive flux injected for each 15 minute period during the HCl, HF and D/F tests, determine and record the 15-minute block average weights, and calculate and record the total weight of the gaseous or liquid reactive flux for the 3 test runs;

* * * * *

(3) Determine the total reactive chlorine flux injection rate and, for uncontrolled furnaces, the total reactive fluorine flux injection rate by adding the recorded measurement of the total weight of chlorine and, for uncontrolled furnaces, fluorine in the gaseous or liquid reactive flux injected and the total weight of chlorine and, for uncontrolled furnaces, fluorine in the solid reactive flux using Equation 5:

$$W_t = F_1 W_1 + F_2 W_2 \qquad \text{(Eq. 5)}$$

Where:

W_t = Total chlorine or fluorine usage, by weight;

F_1 = Fraction of gaseous or liquid flux that is chlorine or fluorine;

W_1 = Weight of reactive flux gas injected;

F_2 = Fraction of solid reactive chloride flux that is chlorine (*e.g.*, F = 0.75 for magnesium chloride) or fraction of solid reactive fluoride flux that is fluorine (*e.g.*, F = 0.33 for potassium fluoride); and

W_2 = Weight of solid reactive flux;

(4) Divide the weight of total chlorine or fluorine usage (W_t) for the 3 test runs by the recorded measurement of the total weight of feed for the 3 test runs; and

(5) If a solid reactive flux other than magnesium chloride or potassium fluoride is used, the owner or operator must derive the appropriate proportion factor subject to approval by the permitting authority for major sources, or the Administrator for area sources.

* * * * *

(p) * * *

(2) Record the feeder setting and lime injection rate for the 3 test runs. If the feed rate setting and lime injection rates vary between the runs, determine and record the average feed rate and lime injection rate from the 3 runs.

* * * * *

■ 11. Section 63.1513 is amended by revising the paragraph (b) heading and paragraphs (b)(1), (d), and (e)(1) through (3), and adding paragraph (f) to read as follows:

§ 63.1513 Equations for determining compliance.

* * * * *

(b) *PM, HCl, HF and D/F emission limits.* (1) Use Equation 7 of this section to determine compliance with an emission limit for PM, HCl or HF:

$$E = \frac{C \times Q \times K_1}{P} \qquad \text{(Eq. 7)}$$

Where:

E = Emission rate of PM, HCl or HF, in kg/Mg (lb/ton) of feed;

C = Concentration of PM, HCl or HF, in g/dscm (gr/dscf);

Q = Volumetric flow rate of exhaust gases, in dscm/hr (dscf/hr);

K_1 = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and

P = Production rate, in Mg/hr (ton/hr).

* * * * *

(d) *Conversion of D/F measurements to TEQ units.* To convert D/F measurements to TEQ units, the owner or operator must use the procedures and equations in *Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update*, incorporated by reference see § 63.14.

(e) * * *

(1) Use Equation 9 to compute the mass-weighted PM emissions for a secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit (E_{cPM}) is less than or equal to the emission limit for the secondary aluminum processing unit (L_{cPM}) calculated using Equation 1 in § 63.1505(k).

$$E_{C_{PM}} = \frac{\sum_{i=1}^{n} \left(E_{ti_{PM}} \times T_{ti} \right)}{\sum_{i=1}^{n} \left(T_{ti} \right)} \qquad \text{(Eq. 9)}$$

Where:

E_{cPM} = The mass-weighted PM emissions for the secondary aluminum processing unit;

E_{tiPM} = Measured PM emissions for individual emission unit, or group of co-controlled emission units, i;

T_{ti} = The average feed rate for individual emission unit i during the operating cycle or performance test period, or the sum of the average feed rates for all emission units in the group of co-controlled emission units i; and

n = The number of emission units, and groups of co-controlled emission units in the secondary aluminum processing unit.

(2) Use Equation 10 to compute the aluminum mass-weighted HCl or HF emissions for the secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit ($E_{cHCl/HF}$) is less than or equal to the emission limit for the secondary aluminum processing unit ($L_{cHCl/HF}$) calculated using Equation 2 in § 63.1505(k).

$$E_{C_{HCl/HF}} = \frac{\sum_{i=1}^{n}\left(E_{ti_{HCl/HF}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad \text{(Eq. 10)}$$

Where:

$E_{cHCl/HF}$ = The mass-weighted HCl or HF emissions for the secondary aluminum processing unit; and

$E_{tiHCl/HF}$ = Measured HCl or HF emissions for individual emission unit, or group of co-controlled emission units i.

(3) Use Equation 11 to compute the aluminum mass-weighted D/F emissions for the secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit is less than or equal to the emission limit for the secondary aluminum processing unit ($L_{cD/F}$) calculated using Equation 3 in § 63.1505(k).

$$E_{C_{D/F}} = \frac{\sum_{i=1}^{n}\left(E_{ti_{D/F}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad \text{(Eq. 11)}$$

Where:

$E_{cD/F}$ = The mass-weighted D/F emissions for the secondary aluminum processing unit; and

$E_{tiD/F}$ = Measured D/F emissions for individual emission unit, or group of co-controlled emission units i.

* * * * *

(f) *Periods of startup and shutdown.* For a new or existing affected source, or a new or existing emission unit subject to an emissions limit in paragraphs § 63.1505(b) through (j) expressed in units of pounds per ton of feed/charge, or µg TEQ or ng TEQ per Mg of feed/charge, demonstrate compliance during periods of startup and shutdown in accordance with paragraph (f)(1) of this section or determine your emissions per unit of feed/charge during periods of startup and shutdown in accordance with paragraph (f)(2) of this section. Startup and shutdown emissions for group 1 furnaces and in-line fluxers must be calculated individually, and not on the basis of a SAPU. Periods of startup and shutdown are excluded from the calculation of SAPU emission limits in § 63.1505(k), the SAPU monitoring requirements in § 63.1510(t) and the SAPU emissions calculations in § 63.1513(e).

(1) For periods of startup and shutdown, records establishing a feed/charge rate of zero, a flux rate of zero, and that the affected source or emission unit was either heated with electricity, propane or natural gas as the sole sources of heat or was not heated, may be used to demonstrate compliance with the emission limit, or

(2) For periods of startup and shutdown, divide your measured emissions in lb/hr or µg/hr or ng/hr by the feed/charge rate in tons/hr or Mg/hr from your most recent performance test associated with a production rate greater than zero, or the rated capacity of the affected source if no prior performance test data is available.

■ 12. Section 63.1514 is added to read as follows:

§ 63.1514 Change of Furnace Classification.

The requirements of this section are in addition to the other requirements of this subpart that apply to group 1 and group 2 furnaces.

(a) *Changing from a group 1 controlled furnace processing other than clean charge to group 1 uncontrolled furnace processing other than clean charge.* An owner or operator wishing to change operating modes must conduct performance tests in accordance with §§ 63.1511 and 63.1512 to demonstrate to the permitting authority for major sources, or the Administrator for area sources that compliance can be achieved under both modes. Operating parameters relevant to each mode of operation must be established during the performance test.

(1) Operators of major sources must conduct performance tests for PM, HCl and D/F, according to the procedures in § 63.1512(d) with the capture system and control device operating normally if compliance has not been previously demonstrated in this operating mode. Performance tests must be repeated at least once every 5 years to demonstrate compliance for each operating mode.

(i) Testing under this paragraph must be conducted in accordance with § 63.1511(b)(1) in the controlled mode.

(ii) Operating parameters must be established during these tests, as required by § 63.1511(g).

(iii) The emission factors for this mode of operation for use in the demonstration of compliance with the emission limits for SAPUs specified in § 63.1505(k) must be determined.

(2) Operators of major sources must conduct performance tests for PM, HCl, HF and D/F, according to the procedures in § 63.1512(e) without operating a control device if compliance has not been previously demonstrated for this operating mode. Performance tests must be repeated at least once every 5 years to demonstrate compliance for each operating mode.

(i) Testing under this paragraph must be conducted in accordance with § 63.1511(b)(1) in the uncontrolled mode.

(ii) Testing under this paragraph must be conducted with furnace emissions captured in accordance with the provisions of § 63.1506(c) and directed to the stack or vent tested.

(iii) Operating parameters representing uncontrolled operation must be established during these tests, as required by § 63.1511(g). For furnaces in batch (cyclic) operation, the number of tap-to-tap cycles (including zero, if none) elapsed using the feed/charge type, feed/charge rate and flux rate must be established as a parameter to be met before changing to uncontrolled mode. For furnaces in continuous (non-cyclic) operation, the time period elapsed (including no time, if none) using the feed/charge type, feed/charge rate and flux rate must be established as a parameter to be met before changing to uncontrolled mode.

(iv) The emission factors for this mode of operation for use in the demonstration of compliance with the

emission limits for SAPUs specified in § 63.1505(k) must be determined.

(3) Operators of area sources must conduct performance tests for D/F, according to the procedures in § 63.1512(d) with the capture system and control device operating normally, if compliance has not been previously demonstrated for this operating mode.

(i) Testing under this paragraph must be conducted in accordance with § 63.1511(b)(1) in the controlled mode.

(ii) Operating parameters must be established during these tests, as required by § 63.1511(g).

(iii) The D/F emission factor for this mode of operation for use in the demonstration of compliance with the emission limits for SAPUs specified in § 63.1505(k) must be determined.

(4) Operators of area sources must conduct performance tests for D/F, according to the procedures in § 63.1512(e) without operating a control device, if compliance has not been previously demonstrated for this operating mode.

(i) Testing under this paragraph must be conducted in accordance with § 63.1511(b)(1).

(ii) Testing under this paragraph must be conducted with furnace emissions captured in accordance with the provisions of § 63.1506(c) and directed to the stack or vent tested.

(iii) Operating parameters representing uncontrolled operation must be established during these tests, as required by § 63.1511(g). For furnaces in batch (cyclic) operation, the number of tap-to-tap cycles (including zero, if none) elapsed using the feed/charge type, feed/charge rate and flux rate must be established as a parameter to be met before changing to uncontrolled mode. For furnaces in continuous (non-cyclic) operation, the time period elapsed (including no time, if none) using the feed/charge type, feed/charge rate and flux rate must be established as a parameter to be met before changing to uncontrolled mode.

(iv) The D/F emission factor for this mode of operation for use in the demonstration of compliance with the emission limits for SAPUs specified in § 63.1505(k) must be determined.

(5) To change modes of operation from uncontrolled to controlled, the owner or operator must perform the following, before charging scrap to the furnace that exceeds the contaminant level established for uncontrolled mode:

(i) Change the label on the furnace to reflect controlled operation;

(ii) Direct the furnace emissions to the control device;

(iii) Turn on the control device and begin lime addition to the control device at the rate established for controlled mode; and

(iv) Ensure the control device is operating properly.

(6) To change modes of operation from controlled to uncontrolled, the owner or operator must perform the following, before turning off or bypassing the control device:

(i) Change the label on the furnace to reflect uncontrolled operation;

(ii) Charge scrap with a level of contamination no greater than that used in the performance test for uncontrolled furnaces for the number of tap-to-tap cycles that elapsed (or, for continuously operated furnaces, the time elapsed) before the uncontrolled mode performance test was conducted; and

(iii) Decrease the flux addition rate to no higher than the flux addition rate used in the uncontrolled mode performance test.

(7) In addition to the recordkeeping requirements of § 63.1517, the owner or operator must maintain records of the nature of each mode change (controlled to uncontrolled, or uncontrolled to controlled), the time the change is initiated, and the time the exhaust gas is diverted from control device to bypass or bypass to control device.

(b) *Changing from a group 1 controlled furnace processing other than clean charge to a group 1 uncontrolled furnace processing clean charge.* An owner or operator wishing to change operating modes must conduct performance tests in accordance with §§ 63.1511 and 63.1512 to demonstrate to the permitting authority for major sources, or the Administrator for area sources that compliance can be achieved in both modes. Operating parameters relevant to each mode of operation must be established during the performance test.

(1) Operators of major sources must conduct performance tests for PM, HCl and D/F, according to the procedures in § 63.1512(d) with the capture system and control device operating normally if compliance has not been previously demonstrated in this operating mode. Performance tests must be repeated at least once every 5 years to demonstrate compliance for each operating mode.

(i) Testing under this paragraph must be conducted in accordance with § 63.1511(b)(1) in the controlled mode.

(ii) Operating parameters must be established during these tests, as required by § 63.1511(g).

(iii) The emission factors for this mode of operation for use in the demonstration of compliance with the emission limits for SAPUs specified in § 63.1505(k) must be determined.

(2) Operators of major sources must conduct performance tests for PM, HCl, HF and D/F, according to the procedures in § 63.1512(e) without operating a control device if compliance has not been previously demonstrated for this operating mode. Performance tests must be repeated at least once every 5 years to demonstrate compliance for each operating mode.

(i) Testing under this paragraph may be conducted at any time after operation with clean charge has commenced.

(ii) Testing under this paragraph must be conducted with furnace emissions captured in accordance with the provisions of § 63.1506(c) and directed to the stack or vent tested.

(iii) Operating parameters representing uncontrolled operation must be established during these tests, as required by § 63.1511(g). For furnaces in batch (cyclic) operation, the number of tap-to-tap cycles (including zero, if none) elapsed using the feed/charge type, feed/charge rate and flux rate must be established as a parameter to be met before changing to uncontrolled mode. For furnaces in continuous (non-cyclic) operation, the time period elapsed (including no time if none) using the feed/charge type, feed/charge rate and flux rate must be established as a parameter to be met before changing to uncontrolled mode.

(iv) Emissions of D/F during this test must not exceed 1.5 μg TEQ/Mg of feed/charge.

(v) The emission factors for this mode of operation for use in the demonstration of compliance with the emission limits for SAPUs specified in § 63.1505(k), must be determined.

(3) Operators of area sources must conduct performance tests for D/F, according to the procedures in § 63.1512(d) with the capture system and control device operating normally, if compliance has not been previously demonstrated for this operating mode.

(i) Testing under this paragraph must be conducted in accordance with § 63.1511(b)(1).

(ii) Operating parameters must be established during these tests, as required by § 63.1511(g).

(iii) The D/F emission factor for this mode of operation for use in the demonstration of compliance with the emission limits for SAPUs specified in § 63.1505(k) must be determined.

(4) Operators of area sources must conduct performance tests for D/F, according to the procedures in § 63.1512(e) without operating a control device if compliance has not been previously demonstrated for this operating mode.

(i) Testing under this paragraph must be conducted at any time after operation with clean charge has commenced and must be conducted in accordance with § 63.1511(b)(1) and under representative conditions expected to produce the highest level of D/F in the uncontrolled mode.

(ii) Testing under this paragraph must be conducted with furnace emissions captured in accordance with the provisions of § 63.1506(c) and directed to the stack or vent tested.

(iii) Operating parameters representing uncontrolled operation must be established during these tests, as required by § 63.1511(g). For furnaces in batch (cyclic) operation, the number of tap-to-tap cycles elapsed (including zero, if none) using the feed/charge type, feed/charge rate and flux rate must be established as a parameter to be met before changing to uncontrolled mode. For furnaces in continuous (non-cyclic) operation, the time period elapsed (including no time, if none) using the feed/charge type, feed/charge rate and flux rate must be established as a parameter to be met before changing to uncontrolled mode.

(iv) Emissions of D/F during this test must not exceed 1.5 μg TEQ/Mg of feed/charge.

(5) To change modes of operation from uncontrolled to controlled, the owner or operator must perform the following, before charging scrap to the furnace that exceeds the contaminant level established for uncontrolled mode:

(i) Change the label on the furnace to reflect controlled operation;

(ii) Direct the furnace emissions to the control device;

(iii) Turn on the control device and begin lime addition to the control device at the rate established for controlled mode; and

(iv) Ensure the control device is operating properly.

(6) To change modes of operation from controlled to uncontrolled, the owner or operator must perform the following, before turning off or bypassing the control device:

(i) Change the label on the furnace to reflect uncontrolled operation;

(ii) Charge clean charge for the number of tap-to-tap cycles that elapsed (or, for continuously operated furnaces, the time elapsed) before the uncontrolled mode performance test was conducted; and

(iii) Decrease the flux addition rate to no higher than the flux addition rate used in the uncontrolled mode performance test.

(7) In addition to the recordkeeping requirements of § 63.1517, the owner or operator must maintain records of the nature of each mode change (controlled to uncontrolled, or uncontrolled to controlled), the time the furnace operating mode change is initiated, and the time the exhaust gas is diverted from control device to bypass or from bypass to control device.

(c) *Changing from a group 1 controlled or uncontrolled furnace to a group 2 furnace.* An owner or operator wishing to change operating modes must conduct performance tests in accordance with §§ 63.1511 and 63.1512 to demonstrate to the permitting authority for major sources, or the Administrator for area sources that compliance can be achieved under both modes and establish the number of cycles (or time) of operation with clean charge and no reactive flux addition necessary before changing to group 2 mode. Operating parameters relevant to group 1 operation must be established during the performance test.

(1) Operators of major sources must conduct performance tests for PM, HCl and D/F (and HF for uncontrolled group 1 furnaces) according to the procedures in § 63.1512 if compliance has not been previously demonstrated for the operating mode. Controlled group 1 furnaces must conduct performance tests according to the procedures in § 63.1512(d) with the capture system and control device operating normally. Uncontrolled group 1 furnaces must conduct performance tests according to the procedures in § 63.1512(e) without operating a control device. Performance tests must be repeated at least once every 5 years to demonstrate compliance for each operating mode.

(i) Testing under this paragraph must be conducted in accordance with § 63.1511(b)(1) in both modes.

(ii) Operating parameters must be established during these tests, as required by § 63.1511(g).

(iii) The emission factors for this mode of operation for use in the demonstration of compliance with the emission limits for SAPUs specified in § 63.1505(k) must be determined.

(2) While in compliance with the operating requirements of § 63.1506(o) for group 2 furnaces, operators of major sources must conduct performance tests for PM, HCl, HF and D/F, according to the procedures in § 63.1512(e) without operating a control device if compliance has not been previously demonstrated for this operating mode. Performance tests must be repeated at least once every 5 years to demonstrate compliance for each operating mode.

(i) Testing under this paragraph may be conducted at any time after the furnace has commenced operation with clean charge and without reactive flux addition.

(ii) Testing under this paragraph must be conducted with furnace emissions captured in accordance with the provisions of § 63.1506(c) and directed to the stack or vent tested.

(iii) Owners or operators must demonstrate that emissions are no greater than:

(A) 1.5 μg D/F (TEQ) per Mg of feed/charge;

(B) 0.040 lb HCl or HF per ton of feed/charge; and

(C) 0.040 lb PM per ton of feed/charge.

(iv) The number of tap-to-tap cycles, or time elapsed between starting operation with clean charge and no reactive flux addition and the group 2 furnace performance test must be established as an operating parameter to be met before changing to group 2 mode.

(3) Operators of area sources must conduct a performance tests for D/F, according to the procedures in § 63.1512 if compliance has not been previously demonstrated for the operating mode. Controlled group 1 furnaces must conduct performance tests according to the procedures in § 63.1512(d) with the capture system and control device operating normally. Uncontrolled group 1 furnaces must conduct performance tests according to the procedures in § 63.1512(e) without operating a control device.

(i) The performance tests must be conducted in accordance with § 63.1511(b)(1) under representative conditions expected to produce the highest expected level of D/F in the group 1 mode.

(ii) Operating parameters must be established during these tests, as required by § 63.1511(g).

(iii) The D/F emission factor for this mode of operation, for use in the demonstration of compliance with the emission limits for SAPUs specified in § 63.1505(k) must be determined.

(4) While in compliance with the operating requirements of § 63.1506(o) for group 2 furnaces, operators of area sources must conduct performance tests for D/F, according to the procedures in § 63.1512(e) without operating a control device if compliance has not been previously demonstrated for this operating mode.

(i) Testing under this paragraph may be conducted at any time after the furnace has commenced operation with clean charge, and without reactive flux addition.

(ii) Testing under this paragraph must be conducted with furnace emissions captured in accordance with the

provisions of § 63.1506(c) and directed to the stack or vent tested.

(iii) Owners or operators must demonstrate that emissions are no greater than 1.5 μg D/F (TEQ) per Mg of feed/charge.

(iv) The number of tap-to-tap cycles, or time elapsed between starting operation with clean charge and no reactive flux and the group 2 furnace performance tests must be established as an operating parameter to be met before changing to group 2 mode.

(5) To change modes of operation from a group 2 furnace to a group 1 furnace, the owner or operator must perform the following before adding other than clean charge and before adding reactive flux to the furnace:

(i) Change the label on the furnace to reflect group 1 operation;

(ii) Direct the furnace emissions to the control device, if it is equipped with a control device;

(iii) If the furnace is equipped with a control device, turn on the control device and begin lime addition to the control device at the rate established for group 1 mode; and

(iv) Ensure the control device is operating properly.

(6) To change mode of operation from a group 1 furnace to group 2 furnace, the owner or operator must perform the following, before turning off or bypassing the control device:

(i) Change the label on the furnace to reflect group 2 operation;

(ii) Charge clean charge for the number of tap-to-tap cycles that elapsed (or, for continuously operated furnaces, the time elapsed) before the group 2 performance test was conducted; and,

(iii) Use no reactive flux.

(7) In addition to the recordkeeping requirements of § 63.1517, the owner or operator must maintain records of the nature of each mode change (controlled or uncontrolled to group 2), the time the change is initiated, and the time the exhaust gas is diverted from control device to bypass or from bypass to control device.

(d) *Changing from a group 1 controlled or uncontrolled furnace to group 2 furnace, for tilting reverberatory furnaces capable of completely removing furnace contents between batches.* An owner or operator of a tilting reverberatory furnace capable of completely removing furnace contents between batches who wishes to change operating modes must conduct performance tests in accordance with §§ 63.1511 and 63.1512 to demonstrate to the permitting authority for major sources, or the Administrator for area sources that compliance can be achieved under group 1 modes. Operating parameters relevant to group 1 operation must be established during the performance test.

(1) Operators of major sources must conduct performance tests for PM, HCl, and D/F (and HF for uncontrolled furnaces) according to the procedures in § 63.1512 if compliance has not been previously demonstrated for this operating mode. Controlled group 1 furnaces must conduct performance tests with the capture system and control device operating normally if compliance has not been previously demonstrated for the operating mode. Controlled group 1 furnaces must conduct performance tests according to the procedures in § 63.1512(d) with the capture system and control device operating normally. Uncontrolled group 1 furnaces must conduct performance tests according to the procedures in § 63.1512(e) without operating a control device. Performance tests must be repeated at least once every 5 years to demonstrate compliance for each operating mode.

(i) Testing under this paragraph must be conducted in accordance with § 63.1511(b)(1) in both modes.

(ii) Operating parameters must be established during these tests, as required by § 63.1511(g).

(iii) The emission factors for this mode of operation for use in the demonstration of compliance with the emission limits for SAPUs specified in § 63.1505(k), must be determined.

(2) Operators of area sources must conduct performance tests for D/F according to the procedures in § 63.1512 if compliance has not been previously demonstrated for this operating mode. Controlled group 1 furnaces must conduct performance tests according to the procedures in § 63.1512(d) with the capture system and control device operating normally. Uncontrolled group 1 furnaces must conduct performance tests according to the procedures in § 63.1512(e) without operating a control device.

(i) The performance test must be conducted in accordance with § 63.1511(b)(1) under representative conditions expected to produce the highest expected level of D/F in the group 1 mode.

(ii) Operating parameters must be established during these tests, as required by § 63.1511(g).

(iii) The D/F emission factor for this mode of operation for use in the demonstration of compliance with the emission limits for SAPUs specified in § 63.1505(k) must be determined.

(3) To change modes of operation from a group 1 furnace to a group 2 furnace, the owner or operator must perform the following before turning off or bypassing the control device:

(i) Completely remove all aluminum from the furnace;

(ii) Change the label on the furnace to reflect group 2 operation;

(iii) Use only clean charge; and

(iv) Use no reactive flux.

(4) To change modes of operation from a group 2 furnace to a group 1 furnace, the owner or operator must perform the following before adding other than clean charge and before adding reactive flux to the furnace:

(i) Change the label on the furnace to reflect group 1 operation;

(ii) Direct the furnace emissions to the control device, if it is equipped with a control device;,

(iii) If the furnace is equipped with a control device, turn on the control device and begin lime addition to the control device at the rate established for group 1 mode; and

(iv) Ensure the control device is operating properly.

(5) In addition to the recordkeeping requirements of § 63.1517, the owner or operator must maintain records of the nature of each mode change (group 1 to group 2, or group 2 to group 1), the time the furnace operating mode change is initiated, and, if the furnace is equipped with a control device, the time the exhaust gas is diverted from control device to bypass or from bypass to control device.

(e) *Limit on Frequency of changing furnace operating mode.* (1) Changing furnace operating mode including reversion to the previous mode, as provided in paragraphs (a) through (d) of this section, may not be done more frequently than 4 times in any 6-month period unless you receive approval from the permitting authority or Administrator for additional changes pursuant to paragraph (e)(2).

(2) If additional changes are needed, the owner or operator must apply in advance to the permitting authority, for major sources, or the Administrator, for area sources, for approval of the additional changes in operating mode.

■ 13. Section 63.1515 is amended by:

■ a. Revising paragraphs (a) introductory text, and (b)(4); and

■ b. Removing paragraph (b)(10).

The revisions read as follows:

§ 63.1515 Notifications.

(a) *Initial notifications.* The owner or operator must submit initial notifications to the permitting authority for major sources, or the Administrator for area sources as described in paragraphs (a)(1) through (7) of this section.

* * * * *

(b) * * *

(4) The compliant operating parameter value or range established for each affected source or emission unit with supporting documentation and a description of the procedure used to establish the value (e.g., lime injection rate, total reactive chlorine flux injection rate, total reactive fluorine flux injection rate for uncontrolled group 1 furnaces, afterburner operating temperature, fabric filter inlet temperature), including the operating cycle or time period used in the performance test.

* * * * *

■ 14. Section 63.1516 is amended by:
■ a. Removing and reserving paragraph (a);
■ b. Revising paragraph (b) introductory text;
■ c. Removing and reserving paragraph and (b)(1)(v);
■ d. Adding paragraphs (b)(2)(vii) and (b)(3)(i);
■ e. Revising paragraph (c) introductory text; and
■ f. Adding paragraphs (d) and (e).

The additions and revisions read as follows:

§ 63.1516 Reports.

* * * * *

(b) Excess emissions/summary report. The owner or operator of a major or area source must submit semiannual reports according to the requirements in § 63.10(e)(3). Except, the owner or operator must submit the semiannual reports within 60 days after the end of each 6-month period instead of within 30 days after the calendar half as specified in § 63.10(e)(3)(v). When no deviations of parameters have occurred, the owner or operator must submit a report stating that no excess emissions occurred during the reporting period.

* * * * *

(2) * * *

(vii) For each affected source choosing to demonstrate compliance during periods of startup and shutdown in accordance with § 63.1513(f)(1): ''During each startup and shutdown, no flux and no feed/charge were added to the emission unit, and electricity, propane or natural gas were used as the sole source of heat or the emission unit was not heated.''

* * * * *

(3) * * *

(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 (b)(3)(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 disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/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.

(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.

* * * * *

(c) *Annual compliance certifications.* For the purpose of annual certifications of compliance required by 40 CFR part 70 or 71, the owner or operator of a major source subject to this subpart must certify continuing compliance based upon, but not limited to, the following conditions:

* * * * *

(d) If there was a malfunction during the reporting period, the owner or operator must submit a report that includes the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken for each malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must include a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions, including, but not limited to, product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters. 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 §§ 63.1506(a)(5) and 63.1520(a)(8).

(e) All reports required by this subpart not subject to the requirements in paragraph (b) of this section must be sent to the Administrator at the appropriate address listed in § 63.13. If acceptable to both the Administrator and the owner or operator of a source, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to paragraph (b) of this section in paper format.

■ 15. Section 63.1517 is amended by:
■ a. By revising paragraphs (b)(1)(iii), (b)(4)(ii), (b)(14);
■ b. By removing and reserving paragraph (b)(16)(i); and
■ c. By adding paragraphs (b)(18) through (20).

The additions and revisions read as follows:

§ 63.1517 Records.

* * * * *

(b) * * *

(1) * * *

(iii) If an aluminum scrap shredder is subject to visible emission observation requirements, records of all Method 9 observations, including records of any visible emissions during a 30-minute daily test or records of all ASTM D7520–13 observations (incorporated by reference, see § 63.14), including data sheets and all raw unaltered JPEGs used for opacity determination, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken.

* * * * *

(4) * * *

(ii) If lime feeder setting is monitored, records of daily and monthly inspections of feeder setting, including records of any deviation of the feeder setting from the setting used in the performance test, with a brief

explanation of the cause of the deviation and the corrective action taken. If a lime feeder has been repaired or replaced, this action must be documented along with records of the new feeder calibration and the feed mechanism set points necessary to maintain the lb/hr feed rate operating limit. These records must be maintained on site and available upon request.

* * * * *

(14) Records of annual inspections of emission capture/collection and closed vent systems or, if the alternative to the annual flow rate measurements is used, records of differential pressure; fan RPM or fan motor amperage; static pressure measurements; or duct centerline velocity using a hotwire anemometer, ultrasonic flow meter, cross-duct pressure differential sensor, venturi pressure differential monitoring or orifice plate equipped with an associated thermocouple, as appropriate.

* * * * *

(18) For any failure to meet an applicable standard, the owner or operator must maintain the following records;

(i) Records of the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken.

(ii) Records of actions taken during periods of malfunction to minimize emissions in accordance with §§ 63.1506(a)(5) and 63.1520(a)(8), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(19) For each period of startup or shutdown for which the owner or operator chooses to demonstrate compliance for an affected source, the owner or operator must comply with (b)(19)(i) or (ii) of this section.

(i) To demonstrate compliance based on a feed/charge rate of zero, a flux rate of zero and the use of electricity, propane or natural gas as the sole sources of heating or the lack of heating, the owner or operator must submit a semiannual report in accordance with § 63.1516(b)(2)(vii) or maintain the following records:

(A) The date and time of each startup and shutdown;

(B) The quantities of feed/charge and flux introduced during each startup and shutdown; and

(C) The types of fuel used to heat the unit, or that no fuel was used, during startup and shutdown; or

(ii) To demonstrate compliance based on performance tests, the owner or operator must maintain the following records:

(A) The date and time of each startup and shutdown;

(B) The measured emissions in lb/hr or μg/hr or ng/hr;

(C) The measured feed/charge rate in tons/hr or Mg/hr from your most recent performance test associated with a production rate greater than zero, or the rated capacity of the affected source if no prior performance test data is available; and

(D) An explanation to support that such conditions are considered representative startup and shutdown operations.

(20) For owners or operators that choose to change furnace operating modes, the following records must be maintained:

(i) The date and time of each change in furnace operating mode, and

(ii)The nature of the change in operating mode (for example, group 1 controlled furnace processing other than clean charge to group 2).

* * * * *

16. Table 1 to Subpart RRR of part 63 is revised to read as follows:

Table 1 to Subpart RRR of Part 63—Emission Standards for New and Existing Affected Sources

Affected source/ Emission unit	Polltuant	Limit	Units
All new and existing affected sources and emission units that are controlled with a PM add-on control device and that choose to monitor with a continuous opacity monitor (COM); and all new and existing aluminum scrap shredders that choose to monitor with a COM or to monitor visible emissions	Opacity	10	percent
New and existing aluminum scrap shredder	PM	0.01	gr/dscf
New and existing thermal chip dryer	THC D/F[a]	0.80 2.50	lb/ton of feed µg TEQ/Mg of feed
New and existing scrap dryer/delacquering kiln/decoating kiln Or Alternative limits if afterburner has a design residence time of at least 1 second and operates at a temperature of at least 1400°F	PM HCl THC D/F[a] PM HCl THC D/F[a]	0.08 0.80 0.06 0.25 0.30 1.50 0.20 5.0	lb/ton of feed lb/ton of feed lb/ton of feed µg TEQ/Mg of feed lb/ton of feed lb/ton of feed lb/ton of feed µg TEQ/Mg of feed
New and existing sweat furnace	D/F[a]	0.80	ng TEQ/dscm 11% O_2[b]
New and existing dross-only furnace	PM	0.30	lb/ton of feed
New and existing in-line fluxer[c]	HCl PM	0.04 0.01	lb/ton of feed lb/ton of feed
New and existing in-line fluxer with no reactive fluxing		No Limit	Work practice: no reactive fluxing
New and existing rotary dross cooler	PM	0.04	gr/dscf
New and existing clean furnace (Group 2)		No Limit	Work practices: clean charge only and no reactive fluxing
New and existing group 1 melting/holding furnace (processing only clean charge)[c]	PM HF[h] HCl	0.80 0.40 0.40 or 10	lb/ton of feed lb/ton of feed lb/ton of feed percent of the HCl upstream of the add-on control device
New and existing group 1 furnace[c]	PM HF[h] HCl D/F[a]	0.40 0.40 0.40 or 10 15.0	lb/ton of feed lb/ton of feed lb/ton of feed percent of the HCl upstream of the add-on control device µg TEQ/Mg of feed

Affected source/ Emission unit	Polltuant	Limit	Units
New and existing group 1 furnace with clean charge only[c]	PM HCl HF[h] D/F[a]	0.40 0.40 0.40 or 10 No Limit	lb/ton of feed lb/ton of feed lb/ton of feed percent of the HCl upstream of an add-on control device Clean charge only
New and existing secondary aluminum processing unit[a,d] (consists of all existing group 1 furnaces and existing in-line flux boxes at the facility, or any combination of new group 1 furnaces and new in-line fluxers)	PM[e]	$L_{t_{PM}} = \frac{\sum_{i=1}^{n}\left(L_{i_{PM}} \times T_i\right)}{\sum_{i=1}^{n}\left(T_i\right)}$ (Eq. 1)	
	HCl and HF[f, h]	$L_{t_{HCl/HF}} = \frac{\sum_{i=1}^{n}\left(L_{i_{HCl/HF}} \times T_i\right)}{\sum_{i=1}^{n}\left(T_i\right)}$ (Eq.2)	
	D/F[g]	$L_{t_{D/F}} = \frac{\sum_{i=1}^{n}\left(L_{i_{D/F}} \times T_i\right)}{\sum_{i=1}^{n}\left(T_i\right)}$ (Eq. 3)	

[a] D/F limit applies to a unit at a major or area source.

[b] Sweat furnaces equipped with afterburners meeting the specifications of § 63.1505(f)(1) are not required to conduct a performance test.

[c] These limits are also used to calculate the limits applicable to secondary aluminum processing units.

[d] Equation definitions: L_{iPM} = the PM emission limit for individual emission unit i in the secondary aluminum processing unit [kg/Mg (lb/ton) of feed]; T_i = the feed rate for individual emission unit i in the secondary aluminum processing unit; L_{tPM} = the overall PM emission limit for the secondary aluminum processing unit [kg/Mg (lb-ton) of feed]; $L_{iHCl/HF}$ = the HCl or HF emission limit for individual emission unit i in the secondary aluminum processing unit [kg/Mg (lb/ton) of feed]; $L_{tHCl/HF}$ = the overall HCl or HF emission limit for the secondary aluminum processing unit [kg/Mg (lb/ton) of feed]; $L_{iD/F}$ = the D/F emission limit for individual emission unit i [µg (TEQ)/Mg (gr TEQ/ton) of feed]; $L_{tD/F}$ = the overall D/F emission limit for the secondary aluminum processing unit [µg TEQ/Mg (gr TEQ/ton) of feed]; n = the number of units in the secondary aluminum processing unit.

[e] In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the PM limit.

[f] In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the HCl and HF limit. Controlled group 1 furnaces cannot be included in the HF emissions calculation because they are not subject to HF limits.

[g] Clean charge furnaces cannot be included in this calculation since they are not subject to the D/F limit.

[h] HF limits apply only to uncontrolled group 1 furnaces.

■ 17. Table 2 to Subpart RRR of part 63 is amended by:
■ a. Revising the entry ''All affected sources and emission units with an add-on air pollution control device;''
■ b. Revising the entry ''Scrap dryer/delacquering kiln/decoating kiln with afterburner and lime-injected fabric filter;''
■ c. Revising the entry ''In-line fluxer with lime-injected fabric filter (including those that are part of a secondary aluminum processing unit);''
■ d. Revising entry ''Group 1 furnace with lime-injected fabric filter (including those that are part of a secondary of aluminum processing unit);''
■ e. Revising the entry Group 1 furnace without add-on air pollution controls (including those that are part of a secondary aluminum processing unit);
■ f. Revising footnote c to Table 2; and
■ g. Adding footnotes d and e to Table 2.

The revisions and additions read as follows:

TABLE 2 TO SUBPART RRR OF PART 63—SUMMARY OF OPERATING REQUIREMENTS FOR NEW AND EXISTING AFFECTED SOURCES AND EMISSION UNITS

Affected source/emission unit	Monitor type/operation/process	Operating requirements
All affected sources and emission units with an add-on air pollution control device.	Emission capture and collection system.	Design and install in accordance with ACGIH Guidelines;[e] operate in accordance with OM&M plan (sweat furnaces may be operated according to 63.1506(c)(4)).[b]
* *	* *	* * *
Scrap dryer/delacquering kiln/decoating kiln with afterburner and lime-injected fabric filter.	Afterburner operating temperature	Maintain average temperature for each 3-hr period at or above average operating temperature during the performance test.
	Afterburner operation	Operate in accordance with OM&M plan.[b]
	Bag leak detector or	Initiate corrective action within 1-hr of alarm and complete in accordance with the OM&M plan;[b] operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with the OM&M plan.[b]
	Fabric filter inlet temperature	Maintain average fabric filter inlet temperature for each 3-hr period at or below average temperature during the performance test +14 °C (+25 °F).
	Lime injection rate	Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection systems; maintain feeder setting at or above the level established during the performance test for continuous injection systems.
* *	* *	* * *
In-line fluxer with lime-injected fabric filter (including those that are part of a secondary aluminum processing unit).	Bag leak detector or	Initiate corrective action within 1-hr of alarm and complete in accordance with the OM&M plan;[b] operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with the OM&M plan.[b]
	Lime injection rate	Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection systems; maintain feeder setting at or above the level established during performance test for continuous injection systems.
	Reactive flux injection rate	Maintain reactive flux injection rate at or below rate used during the performance test for each operating cycle or time period used in the performance test.
* *	* *	* * *
Group 1 furnace with lime-injected fabric filter (including those that are part of a secondary of aluminum processing unit).	Bag leak detector or	Initiate corrective action within 1-hr of alarm; operate such that alarm does not sound more than 5% of operating time in 6-month period; complete corrective action in accordance with the OM&M plan.[b]
	COM	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more; complete corrective action in accordance with the OM&M plan.[b]
	Fabric filter inlet temperature	Maintain average fabric filter inlet temperature for each 3-hour period at or below average temperature during the performance test +14° C (+25° F).
	Natural gas-fired, propane-fired or electrically heated group 1 furnaces that will be idled for at least 24 hours.	Operation of associated capture/collection systems and APCD[b] may be temporarily stopped. Operation of these capture/collection systems and control devices must be restarted before feed/charge, flux or alloying materials are added to the furnace.
	Reactive flux injection rate	Maintain reactive flux injection rate (kg/Mg) (lb/ton) at or below rate used during the performance test for each furnace cycle.

TABLE 2 TO SUBPART RRR OF PART 63—SUMMARY OF OPERATING REQUIREMENTS FOR NEW AND EXISTING AFFECTED SOURCES AND EMISSION UNITS—Continued

Affected source/emission unit	Monitor type/operation/process	Operating requirements
	Lime injection rate	Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection systems; maintain feeder setting at or above the level established at performance test for continuous injection systems.
	Maintain molten aluminum level	Operate sidewell furnaces such that the level of molten metal is above the top of the passage between sidewell and hearth during reactive flux injection, unless the hearth is also controlled.
	Fluxing in sidewell furnace hearth	Add reactive flux only to the sidewell of the furnace unless the hearth is also controlled.
Group 1 furnace without add-on air pollution controls (including those that are part of a secondary aluminum processing unit).	Reactive flux injection rate	Maintain the total reactive chlorine flux injection rate and total reactive fluorine injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test.
	Site-specific monitoring plan.[c]	Operate each furnace in accordance with the work practice/pollution prevention measures documented in the OM&M plan and within the parameter values or ranges established in the OM&M plan.
	Feed material(melting/holding furnace).	Use only clean charge.
* *	* *	* * *

[c] Site-specific monitoring plan. Owner/operators of group 1 furnaces without add-on APCD must include a section in their OM&M plan that documents work practice and pollution prevention measures, including procedures for scrap inspection, by which compliance is achieved with emission limits and process or feed parameter-based operating requirements. This plan and the testing to demonstrate adequacy of the monitoring plan must be developed in coordination with and approved by the permitting authority for major sources, or the Administrator for area sources.
[d] APCD—Air pollution control device.
[e] Incorporated by reference, see § 63.14.

■ 18. Table 3 to Subpart RRR of part 63 is amended by:
■ a. Revising the entry ''All affected sources and emission units with an add-on air pollution control device;''
■ b. Revising the entry ''All affected sources and emission units subject to production-based (lb/ton of feed/charge) emission limits;''
■ c. Revising the entry ''Aluminum scrap shredder with fabric filter;''
■ d. Revising the entry ''Scrap dryer/delacquering kiln/decoating kiln with afterburner and lime-injected fabric filter;''
■ e. Revising entry ''Dross-only furnace with fabric filter;''
■ f. Revising the entry ''Rotary dross cooler with fabric filter;''
■ g. Revising the entry ''In-line fluxer with lime-injected fabric filter;''
■ h. Revising the entry ''Group 1 furnace with lime-injected fabric filter;''
■ i. Revise entry ''Group 1 furnace without add-on controls;''
■ j. Revise footnote c to Table 3;
■ k. Revising footnote d to Table 3; and
■ l. Adding footnote e to Table 3.

The revisions and additions read as follows:

TABLE 3 TO SUBPART RRR OF PART 63—SUMMARY OF MONITORING REQUIREMENTS FOR NEW AND EXISTING AFFECTED SOURCES AND EMISSION UNITS

Affected source/emission unit	Monitor type/operation/process	Monitoring requirements
All affected sources and emission units with an add-on air pollution control device.	Emission capture and collection system.	Annual inspection of all emission capture, collection, and transport systems to ensure that systems continue to operate in accordance with ACGIH Guidelines.[e] Inspection includes volumetric flow rate measurements or verification of a permanent total enclosure using EPA Method 204.[d]
All affected sources and emission units subject to production-based (lb/ton or gr/ton of feed/charge) emission limits.[a].	Feed/charge weight	Record weight of each feed/charge, weight measurement device or other procedure accuracy of ± 1%;[b] calibrate according to manufacturer's specifications, or at least once every 6 months.
* *	* *	* * *
Aluminum scrap shredder with fabric filter.	Bag leak detector or	Install and operate in accordance with manufacturer's operating instructions.
	COM or	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages.
	VE	Conduct and record results of 30-minute daily test in accordance with Method 9 or ASTM D7520–13.[e]

TABLE 3 TO SUBPART RRR OF PART 63—SUMMARY OF MONITORING REQUIREMENTS FOR NEW AND EXISTING AFFECTED SOURCES AND EMISSION UNITS—Continued

Affected source/ emission unit	Monitor type/ operation/process	Monitoring requirements
* *	* *	* * *
Scrap dryer/delacquering kiln/ decoating kiln with afterburner and lime-injected fabric filter.	Afterburner operating temperature	Continuous measurement device to meet specifications in §63.1510(g)(1); record temperature for each 15-minute block; determine and record 3-hr block averages.
	Afterburner operation	Annual inspection of afterburner internal parts; complete repairs in accordance with the OM&M plan.
	Bag leak detector or	Install and operate in accordance with manufacturer's operating instructions.
	COM	Design and Install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages.
	Lime injection rate	For continuous injection systems, inspect each feed hopper or silo every 8 hours to verify that lime is free flowing; record results of each inspection. If blockage occurs, inspect every 4 hours for 3 days; return to 8-hour inspections if corrective action results in no further blockage during 3-day period, record feeder setting daily. Verify monthly that lime injection rate is no less than 90 percent of the rate used during the compliance demonstration test.
	Fabric filter inlet temperature	Continuous measurement device to meet specifications in §63.1510(h)(2); record temperatures in 15-minute block averages; determine and record 3-hr block averages.
* *	* *	* * *
Dross-only furnace with fabric filter	Bag leak detector or	Install and operate in accordance with manufacturer's operating instructions.
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages.
	Feed/charge material	Record identity of each feed/charge; certify charge materials every 6 months.
Rotary dross cooler with fabric filter.	Bag leak detector or	Install and operate in accordance with manufacturer's operating instructions.
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages.
In-line fluxer with lime-injected fabric filter.	Bag leak detector or	Install and operate in accordance with manufacturer's operating instructions.
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages.
	Reactive flux injection rate	Weight measurement device accuracy of ±1%;[b] calibrate according to manufacturer's specifications or at least once every 6 months; record time, weight and type of reactive flux added or injected for each 15-minute block period while reactive fluxing occurs; calculate and record total reactive chlorine flux injection rate and the total reactive fluorine flux injection rate flux injection rate for each operating cycle or time period used in performance test; or Alternative flux injection rate determination procedure per §63.1510(j)(5). For solid flux added intermittently, record the amount added for each operating cycle or time period used in the performance test.
	Lime injection rate	For continuous injection systems, record feeder setting daily and inspect each feed hopper or silo every 8 hrs to verify that lime is free-flowing; record results of each inspection. If blockage occurs, inspect every 4 hrs for 3 days; return to 8-hour inspections if corrective action results in no further blockage during 3-day period.[c] Verify monthly that the lime injection rate is no less than 90 percent of the rate used during the compliance demonstration test.
* *	* *	* * *
Group 1 furnace with lime-injected fabric filter.	Bag leak detector or	Install and operate in accordance with manufacturer's operating instructions.
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 part CFR 63; determine and record 6-minute block averages.

TABLE 3 TO SUBPART RRR OF PART 63—SUMMARY OF MONITORING REQUIREMENTS FOR NEW AND EXISTING AFFECTED SOURCES AND EMISSION UNITS—Continued

Affected source/ emission unit	Monitor type/ operation/process	Monitoring requirements
	Lime injection rate	For continuous injection systems, record feeder setting daily and inspect each feed hopper or silo every 8 hours to verify that lime is free-flowing; record results of each inspection. If blockage occurs, inspect every 4 hours for 3 days; return to 8-hour inspections if corrective action results in no further blockage during 3-day period.[c] Verify monthly that the lime injection rate is no less than 90 percent of the rate used during the compliance demonstration test.
	Reactive flux injection rate	Weight measurement device accuracy of ±1%;[b] calibrate every 3 months; record weight and type of reactive flux added or injected for each 15-minute block period while reactive fluxing occurs; calculate and record total reactive chlorine flux injection rate and the total reactive fluorine flux injection rate flux injection rate for each operating cycle or time period used in performance test; or Alternative flux injection rate determination procedure per § 63.1510(j)(5). For solid flux added intermittently, record the amount added for each operating cycle or time period used in the performance test.
	Fabric filter inlet temperature	Continuous measurement device to meet specifications in § 63.1510(h)(2); record temperatures in 15-minute block averages; determine and record 3-hour block averages.
	Maintain molten aluminum level in sidewell furnace.	Maintain aluminum level operating log; certify every 6 months. If visual inspection of molten metal level is not possible, use physical measurement methods.
Group 1 furnace without add-on controls.	Fluxing in sidewell furnace hearth	Maintain flux addition operating log; certify every 6 months.
	Reactive flux injection rate	Weight measurement device accuracy of +1%;[b] calibrate according to manufacturer's specifications or at least once every six months; record weight and type of reactive flux added or injected for each 15-minute block period while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test. For solid flux added intermittently, record the amount added for each operating cycle or time period used in the performance test.
	OM&M plan (approved by permitting agency).	Demonstration of site-specific monitoring procedures to provide data and show correlation of emissions across the range of charge and flux materials and furnace operating parameters.
	Feed material (melting/holding furnace).	Record type of permissible feed/charge material; certify charge materials every 6 months.

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[c] Permitting authority for major sources, or the Administrator for area sources may approve other alternatives including load cells for lime hopper weight, sensors for carrier gas pressure, or HCl monitoring devices at fabric filter outlet.

[d] The frequency of volumetric flow rate measurements may be decreased to once every 5 years if daily differential pressure measures, daily fan RPM, or daily fan motor amp measurements are made in accordance with § 63.1510(d)(2)(ii–iii). The frequency of annual verification of a permanent total enclosure may be decreased to once every 5 years if negative pressure measurements in the enclosure are made daily in accordance with § 63.1510(d)(2)(iv). In lieu of volumetric flow rate measurements or verification of permanent total enclosure, sweat furnaces may demonstrate annually negative air flow into the sweat furnace opening in accordance with § 63.1510(d)(3).

[e] Incorporated by reference, see § 63.14.

■ 19. Appendix A to Subpart RRR of part 63 is amended by:
■ a. Revising entry §§ 63.1(a)6)–(8);
■ b. Revising entry § 63.1 (a)(9);
■ c. Revising entry § 63.1(a)(10)–(14);
■ d. Revising entry § 63.1(c)(3);
■ e. Revising entry § 63.1(c)(4)–(5);
■ f. Revising entry § 63.4(a)(1)–(3);
■ g. Revising entry § 63.4(a)(4);
■ h. Removing entry § 63.4(a)(5);
■ i. Revising entry § 63.5(b)(3)–(6);
■ j. Adding entry § 63.5(b)(5);
■ k. Adding entry § 63.5(b)(6);
■ l. Revising entry § 63.6(b)(1)–(5);
■ m. Removing entry § 63.6(e)(1)–(2);
■ n. Adding entry § 63.6(e)(1)(i);
■ o. Adding entry § 63.6(e)(1)ii)
■ p. Adding entry § 63.6(e)(2);
■ q. Revising entry § 63.6(e)(3);
■ r. Removing entry § 63.6(f);
■ s. Adding entry § 63.6(f)(1);
■ t. Adding entries § 63.6(f)(2);
■ u. Removing entries § 63.6(h);
■ v. Adding entries § 63.6(h)(1), § 63.6(h)(2) and § 63.6(h)(3);
■ w. Adding entry § 63.6(h)(4)–(9);
■ x. Revising entry § 63.7(a)–(h);
■ y. Adding entries § 63.7(b), § 63.7(c) and § 63.7(d);
■ z. Removing entry § 63.7((e);
■ aa. Adding entries § 63.7(e)(1) and § 63.7(e)(2);
■ bb. Revising entry § 63.7(g);
■ cc. Revising entry § 63.7(h);
■ dd. Removing entry § 63.8((c)(1)–(3);
■ ee. Adding entries § 63.8(c)(1)(i), § 63.8(c)(1)(ii) and § 63.8(c)(1)(iii);
■ ff. Revising entry § 63.8 (c)(4)–(8);
■ gg. Revising entry § 63.8(d);
■ hh. Adding entry § 63.8(d)(3);
■ ii. Revising entry § 63.9(b);
■ jj. Removing entry § 63.10(b);
■ kk. Adding entry § 63.10(b)(1);
■ ll. Adding entry § 63.10(b)(2)(i),(ii), (iv), (v);
■ mm. Adding entry § 63.10(b)(2)(iii), (vi) to (xiv);
■ nn. Adding entry § 63.10(b)(3);
■ oo. Adding entry § 63.10(c)(15);
■ pp. Revising entry § 63.10(d)(4)–(5);
■ qq. Revising entry § 63.11(a)–(b);

■ rr. Revising entry § 63.14; and
■ ss. Adding entry § 63.16.

The revisions and additions read as follows:

APPENDIX A TO SUBPART RRR OF PART 63—GENERAL PROVISIONS APPLICABILITY TO SUBPART RRR

Citation	Applies to RRR	Comment
* * * * *	* * * * *	* *
§ 63.1(a)(6)	Yes.	
§ 63.1(a)(7)–(9)	No	[Reserved].
§ 63.1(a)(10)–(12)	Yes.	
* * * * *	* * * * *	* *
* * * * *	* * * * *	* *
§ 63.1(c)(3)–(4)	No	[Reserved].
§ 63.1(c)(5)	Yes.	
* * * * *	* * * * *	* *
§ 63.4(a)(1)–(2)	Yes.	
§ 63.4(a)(3)–(5)	No	[Reserved].
* * * * *	* * * * *	* *
§ 63.5(b)(3)–(4)	Yes.	
§ 63.5(b)(5)	No	[Reserved].
§ 63.5(b)(6)	Yes.	
* * * * *	* * * * *	* *
§ 63.6(b)(1)–(5)	Yes	§ 63.1501 specifies dates.
* * * * *	* * * * *	* *
§ 63.6(e)(1)(i)	No	See § 63.1506(a)(5) for general duty requirement. Any other cross reference to § 63.6(3)(1)(i) in any other general provision referenced shall be treated as a cross reference to § 63.1506(a)(5).
§ 63.6(e)(1)–(ii)	No.	
§ 63.6(e)(2)	No	[Reserved].
§ 63.6(e)(3)	No.	
§ 63.6(f)(1)	No.	
§ 63.6(f)(2)	Yes.	
* * * * *	* * * * *	* *
§ 63.6(h)(1)	No.	
§ 63.6(h)(2)	Yes.	
§ 63.6(h)(3)	No	[Reserved].
§ 63.6(h)(4)–(9)	Yes.	
* * * * *	* * * * *	* *
§ 63.7(a)	Yes	Except § 63.1511 establishes dates for initial performance tests.
* * * * *	* * * * *	* *
§ 63.7(e)(1)	No.	
§ 63.7(e)(2)	Yes.	
* * * * *	* * * * *	* *
§ 63.7(g)(1)–(3)	Yes	Except for § 63.7(g)(2), which is reserved.
§ 63.7(h)(1)–(5)	Yes.	
* * * * *	* * * * *	* *
§ 63.8(c)(1)(i)	No	See § 63.1506(a)(5) for general duty requirement.
§ 63.8(c)(1)(ii)	Yes.	
§ 63.8(c)(1)(iii)	No.	
§ 63.8(c)(2)–(8)	Yes.	
§ 63.8(d)(1)–(2)	Yes.	
§ 63.8(d)(3)	Yes, except for last sentence, which refers to an SSM plan. SSM plans are not required.	
* * * * *	* * * * *	* *
§ 63.9(b)(1)–(5)	Yes	Except § 63.9(b)(3) is reserved.
* * * * *	* * * * *	* *
§ 63.10(b)(1)	Yes.	
§ 63.10(b)(2)(i), (ii), (iv), (v)	No.	

APPENDIX A TO SUBPART RRR OF PART 63—GENERAL PROVISIONS APPLICABILITY TO SUBPART RRR—Continued

Citation	Applies to RRR	Comment
§ 63.10(b)(2)(iii), (vi)–(xiv)	Yes	§ 63.1517 includes additional requirements.
§ 63.10(b)(3)	Yes.	
* * * * * * *		
§ 63.10(c)(15)	No.	
* * * * * * *		
§ 63.10(d)(4)–(5)	No	See § 63.1516(d).
* * * * * * *		
§ 63.11(a)–(d)	No	Flares not applicable.
* * * * * * *		
§ 63.14	Yes.	
* * * * * * *		
§ 63.16	No.	

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