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40 CFR Part 63
National Emissions Standards for Hazardous Air Pollutants: Secondary Aluminum Production; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA–HQ–OAR–2010–0544; FRL–9628–8]

RIN 2060–AQ40

National Emissions Standards for Hazardous Air Pollutants: Secondary Aluminum Production

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The EPA is proposing amendments to the national emissions standards for hazardous air pollutants for Secondary Aluminum Production to address the results of the residual risk and technology review that the EPA is required to conduct by the Clean Air Act. In addition, the EPA is proposing amendments to correct and clarify rule requirements and provisions. These proposed amendments would require emission sources to comply with the emission limits at all times including periods of startup and shutdown; add a definition of affirmative defense; add a requirement to report performance testing through the Electronic Reporting Tool (ERT); add rule provisions allowing owners and operators to change furnace classifications; add rule requirements regarding testing of uncontrolled furnaces; add compliance provisions for hydrogen fluoride (HF) for uncontrolled group 1 furnaces; add operating requirements such as monitoring of lime injection rates; and make technical corrections and clarifications to the applicability, definitions, operating, monitoring, and performance testing requirements.

DATES: Comments must be received on or before March 30, 2012. Under the Paperwork Reduction Act, comments on the information collection provisions are best assured of having full effect if the Office of Management and Budget (OMB) receives a copy of your comments on or before March 15, 2012.

Public Hearing. If anyone contacts the EPA requesting to speak at a public hearing by February 24, 2012, a public hearing will be held on February 29, 2012.

ADDRESSES: Submit your comments, identified by Docket ID Number EPA–HQ–OAR–2010–0544, by one of the following methods:

- *http://www.regulations.gov:* Follow the on-line instructions for submitting comments.
- *Email: a-and-r-docket@epa.gov,* Attention Docket ID Number EPA–HQ–OAR–2010–0544.
- *Fax:* (202) 566–9744, Attention Docket ID Number EPA–HQ–OAR–2010–0544.
- *Mail:* U.S. Postal Service, send comments to: EPA Docket Center, EPA West (Air Docket), Attention Docket ID Number EPA–HQ–OAR–2010–0544, U.S. Environmental Protection Agency, Mailcode: 2822T, 1200 Pennsylvania Ave. NW., Washington, DC 20460. Please include a total of two copies. In addition, please mail a copy of your comments on the information collection provisions to the Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), Attn: Desk Officer for EPA, 725 17th Street NW., Washington, DC 20503.
- *Hand Delivery:* U.S. Environmental Protection Agency, EPA West (Air Docket), Room 3334, 1301 Constitution Ave. NW., Washington, DC 20004, Attention Docket ID Number EPA–HQ–OAR–2010–0544. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions. Direct your comments to Docket ID Number EPA–HQ–OAR–2010–0544. The EPA's policy is that all comments received will be included in the public docket without change and may be made available on-line at *http://www.regulations.gov,* including any personal information provided, unless the comment includes information claimed to be confidential business information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *http://www.regulations.gov* or email. The *http://www.regulations.gov* Web site is an ''anonymous access'' system, which means the EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to the EPA without going through *http://www.regulations.gov,* your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, the EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If the EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, the EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about the EPA's public docket, visit the EPA Docket Center homepage at *http://www.epa.gov/epahome/dockets.htm.*

Docket. The EPA has established a docket for this rulemaking under Docket ID Number EPA–HQ–OAR–2010–0544. The proposed rulemaking also used material from Docket ID Number EPA–HQ–OAR–2010–0469 in the development of this rule. All documents in the docket are listed in the *http://www.regulations.gov* index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy. Publicly available docket materials are available either electronically in *http://www.regulations.gov* or in hard copy at the EPA Docket Center, EPA West, Room 3334, 1301 Constitution Ave. NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the EPA Docket Center is (202) 566–1742.

Public Hearing. If a public hearing is held, it will begin at 10 a.m. on February 29, 2012 and will be held at the EPA's campus in Research Triangle Park, North Carolina, or at an alternate facility nearby. Persons interested in presenting oral testimony or inquiring as to whether a public hearing is to be held should contact Ms. Virginia Hunt, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, (D243–02), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–0832.

FOR FURTHER INFORMATION CONTACT: For questions about this proposed 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 (919) 541–1390; fax number: (919) 541–3207; and email address: *boyd.rochelle@epa.gov.* For specific information regarding the risk modeling methodology, contact Dr. Michael Stewart, Office of Air Quality Planning and Standards, Health and Environmental Impacts Division, Air Toxics Assessment Group (C504–06), U.S. Environmental Protection Agency, Research Triangle Park, NC 27711;

telephone number: (919) 541–7524; fax number: (919) 541–0840; and email address: *stewart.michael@epa.gov.* For information about the applicability of the national emission standards for hazardous air pollutants (NESHAP) to a particular entity, contact the appropriate person listed in Table 1 of this preamble.

TABLE 1—LIST OF EPA CONTACTS FOR THE NESHAP ADDRESSED IN THIS PROPOSED ACTION

NESHAP for:	OECA Contact[1]	OAQPS Contact[2]
Secondary Aluminum Production	Scott Throwe, (202) 564–7013 *throwe.scott@epa.gov.*	Rochelle Boyd, (919) 541–1390, *boyd.rochelle@epa.gov*

[1] EPA Office of Enforcement and Compliance Assurance.
[2] EPA Office of Air Quality Planning and Standards.

SUPPLEMENTARY INFORMATION:

Preamble Acronyms and Abbreviations

Several acronyms and terms used to describe industrial processes, data inventories, and risk modeling are included in this preamble. While this may not be an exhaustive list, for ease of reading of this preamble and for reference purposes, the following terms and acronyms are defined here:

ACGIH American Conference of Government Industrial Hygienists
ADAF age-dependent adjustment factors
AEGL acute exposure guideline levels
AERMOD air dispersion model used by the HEM–3 model
APCD air pollution control devices
AMOS ample margin of safety
ANPRM advance notice of proposed rulemaking
ATSDR Agency for Toxic Substances and Disease Registry
BACT best available control technology
CAA Clean Air Act
CBI confidential business information
CFR Code of Federal Regulations
D/F dioxins and furans
EJ environmental justice
EPA Environmental Protection Agency
ERPG Emergency Response Planning Guidelines
ERT Electronic Reporting Tool
HAP hazardous air pollutants
HCl hydrogen chloride
HEM–3 Human Exposure Model, Version 3
HF hydrogen fluoride
HHRAP human health risk assessment protocols
HI hazard index
HQ hazard quotient
ICR information collection request
IRIS Integrated Risk Information System
km kilometer
LAER lowest achievable emissions rate
lb/yr pounds per year
MACT maximum achievable control technology
MACT Code code within the NEI used to identify processes included in a source category
MDL method detection level
mg/acm milligrams per actual cubic meter
mg/dscm milligrams per dry standard cubic meter
mg/m^3 milligrams per cubic meter
MIR maximum individual risk
MRL minimum risk level
NAC/AEGL Committee National Advisory Committee for Acute Exposure Guideline Levels for Hazardous Substances
NAICS North American Industry Classification System
NAS National Academy of Sciences
NATA National Air Toxics Assessment
NEI National Emissions Inventory
NESHAP National Emissions 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
OHEA Office of Health and Environmental Assessment
OMB Office of Management and Budget
PB–HAP hazardous air pollutants known to be persistent and bio-accumulative in the environment
PM particulate matter
ppmv parts per million by volume
RACT reasonably available control technology
RBLC RACT/BACT/LAER Clearinghouse
REL reference exposure level
RFA Regulatory Flexibility Act
RfC reference concentration
RfD reference dose
RIA regulatory impact analysis
RTR residual risk and technology review
SAB Science Advisory Board
SBA Small Business Administration
SCC source classification codes
SF3 2000 Census of Population and Housing Summary
SIP state implementation plan
SOP standard operating procedures
SSM startup, shutdown, and malfunction
TEF toxic equivalency factors
TEQ toxic equivalency quotient
THC total hydrocarbons
TOSHI target organ-specific hazard index
tpy tons per year
TRIM Total Risk Integrated Modeling System
TTN Technology Transfer Network
UBC used beverage containers
UF uncertainty factor
$\mu g/m^3$ microgram per cubic meter
UMRA Unfunded Mandates Reform Act
UPL upper predictive limit
URE unit risk estimate
VOC volatile organic compounds
VOHAP volatile organic hazardous air pollutants
WHO World Health Organization
WWW worldwide web

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

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H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use
I. National Technology Transfer and Advancement Act
J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

I. General Information

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, after the EPA has identified categories of sources emitting one or more of the HAP listed in section 112(b) of the CAA, section 112(d) of the CAA calls for us to promulgate national emission standards for hazardous air pollutants (NESHAP) for those sources. ''Major sources'' are those that emit or have the potential to emit (PTE) 10 tons per year (tpy) or more of a single HAP or 25 tpy or more of any combination of HAP. For major sources, these technology-based standards must reflect the maximum degree of emission reductions of HAP achievable (after considering cost, energy requirements and non-air quality health and environmental impacts) and are commonly referred to as maximum achievable control technology (MACT) standards.

MACT standards must require the maximum degree of emissions reduction achievable through the application of measures, processes, methods, systems or techniques including, but not limited to, measures which (1) reduce the volume of or eliminate emissions of pollutants through process changes, substitution of materials or other modifications, (2) enclose systems or processes to eliminate emissions, (3) capture or treat pollutants when released from a process, stack, storage or fugitive emissions point, (4) are design, equipment, work practice or operational standards (including requirements for operator training or certification) or (5) are a combination of the above. CAA section 112(d)(2)(A)–(E). The MACT standard may take the form of a design, equipment, work practice or operational standard where the EPA first determines that either (1) a pollutant cannot be emitted through a conveyance designed and constructed to emit or capture the pollutant or that any requirement for, or use of, such a conveyance would be inconsistent with law, or (2) the application of measurement methodology to a particular class of sources is not practicable due to technological and economic limitations. CAA sections 112(h)(1)–(2).

The MACT ''floor'' is the minimum control level allowed for MACT standards promulgated under CAA section 112(d)(3) and may not be based on cost considerations. For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source. The MACT floors 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. We may establish standards more stringent than the floor based on consideration of the cost of achieving the emissions reductions and any non-air quality health and environmental impacts and energy requirements.

Under CAA section 112(d)(6), the EPA is then required to review these technology-based standards and to revise them ''as necessary (taking into account developments in practices, processes, and control technologies)'' no less frequently than every 8 years. In conducting this review, the EPA is not obliged to completely recalculate the prior MACT determination. *NRDC* v. *EPA,* 529 F.3d 1077, 1084 (DC Cir. 2008).

The second stage in standard-setting focuses on reducing any remaining ''residual'' risk according to CAA section 112(f). This provision requires, first, that the EPA prepare a *Report to Congress* discussing (among other things) methods of calculating risk posed (or potentially posed) by sources after implementation of the MACT standards, the public health significance of those risks, and the EPA's recommendations as to legislation regarding such remaining risk. The EPA prepared and submitted this report (*Residual Risk Report to Congress,* EPA–453/R–99–001) in March 1999. Congress did not act in response to the report, thereby triggering the EPA's obligation under CAA section 112(f)(2) to analyze and address residual risk.

CAA section 112(f)(2) requires us to determine, for source categories subject to certain MACT standards, whether the emissions standards provide an ample margin of safety to protect public health. If the MACT standards for HAP ''classified as a known, probable, or possible human carcinogen do not reduce lifetime excess cancer risks to the individual most exposed to emissions from a source in the category or subcategory to less than one in one million,'' the EPA must promulgate residual risk standards for the source category (or subcategory), as necessary, to provide an ample margin of safety to protect public health. In doing so, the EPA may adopt standards equal to existing MACT standards if the EPA determines that the existing standards are sufficiently protective. *NRDC* v. *EPA,* 529 F.3d 1077, 1083 (DC Cir. 2008). (''If EPA determines that the existing technology-based standards provide an 'ample margin of safety,' then the agency is free to readopt those standards during the residual risk rulemaking.'') The EPA must also adopt more stringent standards, if necessary, to prevent an adverse environmental effect [1] but must consider cost, energy, safety and other relevant factors in doing so.

Section 112(f)(2) of the CAA expressly preserves our use of a two-step process for developing standards to address any residual risk and our interpretation of ''ample margin of safety'' developed in the *National Emission Standards for Hazardous Air Pollutants: Benzene Emissions From Maleic Anhydride Plants, Ethylbenzene/Styrene Plants, Benzene Storage Vessels, Benzene Equipment Leaks, and Coke By-Product Recovery Plants (Benzene NESHAP)* (54 FR 38044, September 14, 1989). The first step in this process is the determination of acceptable risk. The second step provides for an ample margin of safety to protect public health, which is the level at which the standards are set (unless a more stringent standard is necessary to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect).

The terms ''individual most exposed,'' ''acceptable level,'' and ''ample margin of safety'' are not specifically defined in the CAA. However, CAA section 112(f)(2)(B) preserves the EPA's interpretation set out in the Benzene NESHAP, and the United States Court of Appeals for the District of Columbia

[1] ''Adverse environmental effect'' is defined in CAA section 112(a)(7) as any significant and widespread adverse effect, which may be reasonably anticipated to wildlife, aquatic life or natural resources, including adverse impacts on populations of endangered or threatened species or significant degradation of environmental qualities over broad areas.

Circuit in *NRDC* v. *EPA* concluded that the EPA's interpretation of subsection 112(f)(2) is a reasonable one. See *NRDC* v. *EPA,* 529 F.3d 1077 1083 (DC Cir. 2008) (''[S]ubsection 112(f)(2)(B) expressly incorporates the EPA's interpretation of the Clean Air Act from the Benzene standard, complete with a citation to the **Federal Register**''); see also *A Legislative History of the Clean Air Act Amendments of 1990,* volume 1, p. 877 (Senate debate on Conference Report). We notified Congress in the *Residual Risk Report to Congress* that we intended to use the Benzene NESHAP approach in making CAA section 112(f) residual risk determinations (EPA–453/R–99–001, p. ES–11).

In the Benzene NESHAP, 54 FR at 38044–38045, we stated as an overall objective:

> In protecting public health with an ample margin of safety under section 112, EPA strives to provide maximum feasible protection against risks to health from hazardous air pollutants by (1) protecting the greatest number of persons possible to an individual lifetime risk level no higher than approximately 1 in 1 million; and (2) limiting to no higher than approximately 1 in 10 thousand [i.e., 100 in 1 million] the estimated risk that a person living near a plant would have if he or she were exposed to the maximum pollutant concentrations for 70 years.

The agency stated that ''[t]he EPA also considers incidence (the number of persons estimated to suffer cancer or other serious health effects as a result of exposure to a pollutant) to be an important measure of the health risk to the exposed population. Incidence measures the extent of health risk to the exposed population as a whole, by providing an estimate of the occurrence of cancer or other serious health effects in the exposed population.'' 54 FR at 38045. The agency went on to conclude that ''estimated incidence would be weighed along with other health risk information in judging acceptability.'' 54 FR at 38046. As explained more fully in our *Residual Risk Report to Congress,* the EPA does not define ''rigid line[s] of acceptability,'' but considers rather broad objectives to be weighed with a series of other health measures and factors (EPA–453/R–99–001, p. ES–11). The determination of what represents an ''acceptable'' risk is based on a judgment of ''what risks are acceptable in the world in which we live'' (*Residual Risk Report to Congress,* p. 178, quoting the *Vinyl Chloride* decision at 824 F.2d 1165) recognizing that our world is not risk-free.

In the Benzene NESHAP, we stated that ''EPA will generally presume that if the risk to [the maximum exposed] individual is no higher than approximately 1 in 10 thousand, that risk level is considered acceptable.'' 54 FR at 38045. We discussed the maximum individual lifetime cancer risk (or maximum individual risk (MIR)) as being ''the estimated risk that a person living near a plant would have if he or she were exposed to the maximum pollutant concentrations for 70 years.'' *Id.* We explained that this measure of risk ''is an estimate of the upper bound of risk based on conservative assumptions, such as continuous exposure for 24 hours per day for 70 years.'' *Id.* We acknowledge that maximum individual lifetime cancer risk ''does not necessarily reflect the true risk, but displays a conservative risk level which is an upper bound that is unlikely to be exceeded.'' *Id.*

Understanding that there are both benefits and limitations to using maximum individual lifetime cancer risk as a metric for determining acceptability, we acknowledged in the 1989 Benzene NESHAP that ''consideration of maximum individual risk * * * must take into account the strengths and weaknesses of this measure of risk.'' *Id.* Consequently, the presumptive risk level of 100 in 1 million (1 in 10 thousand) provides a benchmark for judging the acceptability of maximum individual lifetime cancer risk, but does not constitute a rigid line for making that determination.

The agency also explained in the 1989 Benzene NESHAP: ''[i]n establishing a presumption for MIR, rather than a rigid line for acceptability, the Agency intends to weigh it with a series of other health measures and factors. These include the overall incidence of cancer or other serious health effects within the exposed population, the numbers of persons exposed within each individual lifetime risk range and associated incidence within, typically, a 50 km [kilometer] exposure radius around facilities, the science policy assumptions and estimation uncertainties associated with the risk measures, weight of the scientific evidence for human health effects, other quantified or unquantified health effects, effects due to co-location of facilities, and co-emission of pollutants.'' *Id.*

In some cases, these health measures and factors taken together may provide a more realistic description of the magnitude of risk in the exposed population than that provided by maximum individual lifetime cancer risk alone. As explained in the Benzene NESHAP, ''[e]ven though the risks judged 'acceptable' by the EPA in the first step of the *Vinyl Chloride* inquiry are already low, the second step of the inquiry, determining an 'ample margin of safety,' again includes consideration of all of the health factors, and whether to reduce the risks even further * * *.'' Beyond that information, additional factors relating to the appropriate level of control will also be considered, including costs and economic impacts of controls, technological feasibility, uncertainties and any other relevant factors. Considering all of these factors, the Agency will establish the standard at a level that provides an ample margin of safety to protect the public health, as required by CAA section 112.'' 54 FR at 38046.

As discussed above, we apply a two-step process for developing standards to address residual risk. In the first step, the EPA determines whether risks are acceptable. This determination ''considers all health information, including risk estimation uncertainty, and includes a presumptive limit on maximum individual lifetime [cancer] risk (MIR)[2] of approximately 1 in 10 thousand [i.e., 100 in 1 million].'' 54 FR at 38045. In the second step of the process, the EPA sets the standard at a level that provides an ample margin of safety ''in consideration of all health information, including the number of persons at risk levels higher than approximately 1 in 1 million, as well as other relevant factors, including costs and economic impacts, technological feasibility, and other factors relevant to each particular decision.'' *Id.*

In past residual risk determinations, the EPA presented a number of human health risk metrics associated with emissions from the category under review, including: The MIR; the numbers of persons in various risk ranges; cancer incidence; the maximum noncancer hazard index (HI); and the maximum acute noncancer hazard. In estimating risks, the EPA considered source categories under review that are located near each other and that affect the same population. The EPA estimates risk based on the actual emissions from the source category under review as well as based on the emissions allowed pursuant to the source category MACT standard. The EPA also discussed and considered risk estimation uncertainties. The EPA is providing this same type of information in support of these actions.

The agency acknowledges that the Benzene NESHAP provides flexibility

[2] Although defined as ''maximum individual risk,'' MIR refers only to cancer risk. MIR, one metric for assessing cancer risk, is the estimated risk were an individual to be exposed to the maximum level of a pollutant for a lifetime.

regarding what factors the EPA might consider in making our determinations and how they might be weighed for each source category. In responding to comment on our policy under the Benzene NESHAP, the EPA explained that: ''[t]he policy chosen by the Administrator permits consideration of multiple measures of health risk. Not only can the MIR figure be considered, but also incidence, the presence of noncancer health effects, and the uncertainties of the risk estimates. In this way, the effect on the most exposed individuals can be reviewed as well as the impact on the general public. These factors can then be weighed in each individual case. This approach complies with the *Vinyl Chloride* mandate that the Administrator ascertain an acceptable level of risk to the public by employing [her] expertise to assess available data. It also complies with the Congressional intent behind the CAA, which did not exclude the use of any particular measure of public health risk from the EPA's consideration with respect to CAA section 112 regulations and thereby implicitly permits consideration of any and all measures of health risk which the Administrator, in [her] judgment, believes are appropriate to determining what will 'protect the public health.' '' 54 FR at 38057.

For example, the level of the MIR is only one factor to be weighed in determining acceptability of risks. The Benzene NESHAP explains ''an MIR of approximately 1 in 10 thousand should ordinarily be the upper end of the range of acceptability. As risks increase above this benchmark, they become presumptively less acceptable under CAA section 112, and would be weighed with the other health risk measures and information in making an overall judgment on acceptability. Or, the agency may find, in a particular case, that a risk that includes MIR less than the presumptively acceptable level is unacceptable in the light of other health risk factors.'' 54 FR at 38045. Similarly, with regard to the ample margin of safety analysis, the Benzene NESHAP states that: ''EPA believes the relative weight of the many factors that can be considered in selecting an ample margin of safety can only be determined for each specific source category. This occurs mainly because technological and economic factors (along with the health-related factors) vary from source category to source category.'' 54 FR at 38061.

B. Does this action apply to me?

The regulated industrial source category that is the subject of this proposal is listed in Table 2 of this preamble. Table 2 of this preamble is not intended to be exhaustive, but rather provides a guide for readers regarding the entities likely to be affected by this proposed action. These standards, once finalized, will be directly applicable to affected sources. Federal, State, local, and tribal government entities are not affected by this proposed action. The EPA defined the Secondary Aluminum source category in 1992 as any establishment using clean charge, aluminum scrap, or dross from aluminum production, as the raw material and performing one or more of the following processes: Scrap shredding, scrap drying/delacquering/decoating, thermal chip drying, furnace operations (i.e., melting, holding, sweating, refining, fluxing, or alloying), recovery of aluminum from dross, in-line fluxing, or dross cooling.

TABLE 2—NESHAP AND INDUSTRIAL SOURCE CATEGORIES AFFECTED BY THIS PROPOSED ACTION

Source category	NESHAP	NAICS code [1]	MACT code [2]
Secondary Aluminum Production	Secondary Aluminum Production	331314	0044
Primary aluminum production facilities		331312	
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	

[1] North American Industry Classification System.
[2] Maximum Achievable Control Technology.

C. 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 proposal will also be available on the World Wide Web (WWW) through the EPA's Technology Transfer Network (TTN). Following signature by the EPA Administrator, a copy of this proposed action will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules at the following address: *http://www.epa.gov/ttn/atw/rrisk/rtrpg.html*. The TTN provides information and technology exchange in various areas of air pollution control including the residual risk and technology review (RTR) and includes source category descriptions and detailed emissions estimates and other data that were used as inputs to the risk assessments.

D. What should I consider as I prepare my comments for the EPA?

Submitting CBI. Do not submit information containing CBI to the EPA through *http://www.regulations.gov* or email. Clearly mark the part or all of the information that you claim to be CBI. For CBI information on a disk or CD ROM that you mail to the EPA, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. If you submit a CD ROM or disk that does not contain CBI, mark the outside of the disk or CD ROM clearly that it does not contain CBI. Information not marked as CBI will be included in the public docket and the EPA's electronic public docket without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. Send or deliver information identified as CBI only to the following address: Roberto Morales, OAQPS Document Control Officer (C404–02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, Attention Docket ID Number EPA–HQ–OAR–2010–0544.

II. Background

A. What is this source category and how did the MACT standard regulate its HAP emissions?

The Secondary Aluminum Production source category includes facilities that produce aluminum from scrap aluminum material and consists of the following operations: (1) Preprocessing of scrap aluminum, including size reduction and removal of oils, coatings, and other contaminants; (2) Furnace operations including melting, in-furnace refining, fluxing, and tapping; (3) Additional refining, by means of in-line fluxing; and (4) Cooling of dross. The following sections include descriptions of the affected sources in the secondary aluminum production source category, the origin of HAP emissions from these affected sources, and factors affecting the emissions.

Scrap aluminum is often preprocessed prior to melting. Preprocessing steps may include shredding to reduce the size of aluminum scrap; drying of oily scrap such as machine turnings and borings; and/or heating in a scrap dryer, delacquering kiln or decoating kiln to remove coatings or other contaminants that may be present on the scrap. Heating of high iron content scrap in a sweat furnace to reclaim the aluminum content is also a preprocessing operation.

Crushing, shredding and grinding operations are used to reduce the size of scrap aluminum. Particulate matter (PM) and HAP metals emissions are generated as dust from coatings and other contaminants contained in the scrap aluminum as they are processed.

A chip dryer is used to evaporate oil and/or moisture from uncoated aluminum chips and borings. Chip dryers typically operate at temperatures ranging between 150 °C to 400 °C (300 °F to 750 °F). An uncontrolled chip dryer may emit dioxins and furans (D/F) and total hydrocarbons (THC), of which some fraction is organic HAP.

Painted and/or coated materials are processed in a scrap dryer/delacquering kiln/decoating kiln to remove coatings and other contaminants that may be present in the scrap prior to melting. Coatings, oils, grease, and lubricants represent up to 20 percent of the total weight of these materials. Organic HAP, D/F, and inorganic HAPs including particulate metal HAP are emitted during the drying/delacquering/decoating process.

Used beverage containers (UBC) comprise a major portion of the recycled aluminum scrap used as feedstock by the industry. In scrap drying/delacquering/decoating operations, UBC and other post-consumer, coated products (e.g., aluminum siding) are heated to an exit temperature of up to 540 °C (1,000 °F) to volatilize and remove various organic contaminants such as paints, oils, lacquers, rubber, and plastic laminates prior to melting. An uncontrolled scrap dryer/delacquering kiln/decoating kiln emits PM (of which some fraction is particulate metal HAP), HCl, THC (of which some fraction is organic HAP), and D/F.

A sweat furnace is typically used to reclaim (or ''sweat'') the aluminum from scrap with high levels of iron. These furnaces operate in batch mode at a temperature that is high enough to melt the aluminum but not high enough to melt the iron. The aluminum melts and flows out of the furnace while the iron remains in the furnace in solid form. The molten aluminum can be cast into sows, ingots, or T-bars that are used as feedstock for aluminum melting and refining furnaces. Alternately, molten aluminum can be fed directly to a melting or refining furnace. An uncontrolled sweat furnace may emit D/F.

Process (i.e. melting, holding or refining) furnaces are refractory-lined metal vessels heated by an oil or gas burner to achieve a metal temperature of about 760 °C (1,400 °F). The melting process begins with the charging of scrap into the furnace. A gaseous (typically, chlorine) or salt flux may be added to remove impurities and reduce aluminum oxidation. Once molten, the chemistry of the bath is adjusted by adding selected scrap or alloying agents, such as silicon. Salt and other fluxes contain chloride and fluoride compounds that may be released when introduced to the bath. HCl may also be released when chlorine-containing contaminants (such as polyvinyl chloride coatings) present in some types of scrap are introduced to the bath. Argon and nitrogen fluxes are not reactive and do not produce HAPs. In a sidewell melting furnace, fluxing is performed in the sidewell and fluxing emissions from the sidewell are controlled. In this type of furnace, fluxing is not typically done in the hearth and hearth emissions (which include products of combustion from the oil and gas fired furnaces) are typically uncontrolled.

Process furnaces may process contaminated scrap which can result in HAP emissions. In addition, fluxing agents may contain HAPs, some fraction of which is emitted from the furnace. Process furnaces are significant sources of HAP emissions in the secondary aluminum industry. An uncontrolled melting furnace which processes contaminated scrap and uses reactive fluxes emits PM (of which some fraction is particulate metal HAP), HCl, and D/F.

Process furnaces are divided into group 1 and group 2 furnaces. Group 1 furnaces are unrestricted in the type of scrap they process and the type of fluxes they can use. Group 2 furnaces process only clean charge and conduct no reactive fluxing.

Dross-only furnaces are furnaces dedicated to reclamation of aluminum from drosses formed during the melting/holding/alloying operations carried out in other furnaces. Exposure to the atmosphere causes the molten aluminum to oxidize, and the flotation of the impurities to the surface along with any salt flux creates ''dross.'' Prior to tapping, the dross is periodically skimmed from the surface of the aluminum bath and cooled. Dross-only furnaces are typically rotary barrel furnaces (also known as salt furnaces). A dross-only furnace without controls emits PM (of which some fraction is particulate metal HAP).

Rotary dross coolers are devices used to cool dross in a rotating, water-cooled drum. A rotary dross cooler without controls emits PM (of which some fraction is particulate metal HAP).

In-line fluxers are devices used for aluminum refining, including degassing, outside the furnace. The process involves the injection of chlorine, argon, nitrogen or other gases to achieve the desired metal purity. Argon and nitrogen are not reactive and do not produce HAPs. In-line fluxers are found primarily at facilities that manufacture very high quality aluminum or in facilities with no other means of degassing. An in-line fluxer operating without emission controls emits HCl and PM.

The Secondary Aluminum Production NESHAP was promulgated on March 23, 2000, (65 FR 15690) and codified as 40 CFR part 63, subpart RRR. The rule was amended at 67 FR 79808, December 30, 2002; 69 FR 53980, September 3, 2004; 70 FR 57513, October 3, 2005 and 70 FR 75320, December 19, 2005. The existing subpart RRR NESHAP regulates HAP emissions from secondary aluminum production facilities that are major sources of HAP 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 HAP emitted by these facilities are metals, organic HAP, D/F, hydrogen chloride (HCl), and hydrogen fluoride (HF).

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 other than D/F, D/F expressed as toxicity equivalents, and HCl as a surrogate for acid gases including 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. Table 3 provides a summary of the current MACT emissions limits for existing and new sources under the 2000 NESAHP and the 2005 amendments.

Table 3. Emission Standards for New and Existing Affected Sources for the Secondary Aluminum Source Category

Affected source/ Emission unit	Pollutant	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	PM HCl THC D/F[a]	0.08 0.80 0.06 0.25	lb/ton of feed lb/ton of feed lb/ton of feed µg TEQ/Mg of feed
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]	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
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	0.80	lb/ton of feed
	HCl	0.40	lb/ton of feed
		or	
		10	percent of the HCl upstream of an add-on control device
New and existing group 1 furnace[c]	PM	0.40	lb/ton of feed
	HCl	0.40	lb/ton of feed
		or	
		10	percent of the HCl upstream of an add-on control device
	D/F[a]	15.0	µg TEQ/Mg of feed
New and existing group 1 furnace[c] with clean charge only	PM	0.40	lb/ton of feed
	HCl	0.40	lb/ton of feed
		or	
		10	percent of the HCl upstream of an add-on control device
	D/F[a]	No Limit	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 all simultaneously constructed new group 1 furnaces and new in-line fluxers)	PM[e]	$L_{t_{PM}} = \frac{\sum_{i=1}^{n} \left(L_{i_{PM}} \times T_i\right)}{\sum_{i=1}^{n} \left(T_i\right)}$	
	HCl[f]	$L_{t_{HCl}} = \frac{\sum_{i=1}^{n} \left(L_{i_{HCl}} \times T_i\right)}{\sum_{i=1}^{n} \left(T_i\right)}$	
	D/F[g]	$L_{t_{D/F}} = \frac{\sum_{i=1}^{n} \left(L_{i_{D/F}} \times T_i\right)}{\sum_{i=1}^{n} \left(T_i\right)}$	

[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} = the HCl emission limit for individual emission unit i in the secondary aluminum processing unit [kg/Mg (lb/ton) of feed]; L_{tHCl} = the overall HCl 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 limit.

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

Control devices currently in use to reduce emissions from affected sources subject to the subpart RRR NESHAP 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. All affected sources with add-on controls are also subject to design requirements and operating limits to limit fugitive emissions.

Compliance with the emission limits in the current rule is demonstrated by an initial performance test for each affected source. Repeat performance tests are required every 5 years. Area sources are only subject to one-time performance tests for D/F. After the compliance tests, facilities are required to monitor various control parameters or conduct other types of monitoring to ensure continuous compliance with the MACT standards. Owners or operators of sweat furnaces that operate an afterburner that meets temperature and residence time requirements are not required to conduct performance tests.

B. What data collection activities were conducted to support this action?

For the Secondary Aluminum Production source category, we compiled a dataset from two primary sources: (1) An all-company information collection request (ICR) sent to companies in February 2011, and (2) a nine-company testing ICR, sent in May 2010.

Responses to the all-company ICR contained data on stack release characteristics such as height, volumetric flow rate, temperature, and location (latitude/longitude) coordinates. Responses to the all-company ICR also contained data on maximum production capacity and actual production in tpy and testing results for pollutants regulated under subpart RRR.

As mentioned above, the pollutants regulated under subpart RRR are PM, HCl, THC and D/F. PM is a surrogate for metal HAP and THC is a surrogate for organic HAP. Since subpart RRR compliance testing is performed for the surrogates PM and THC, there are limited test data available for speciated metal HAP and organic HAP emissions. Therefore, responses to the nine-company testing ICR were used to extrapolate the PM and THC testing results reported in the all-company ICR to specific metal and organic HAP emissions. In the nine-company testing ICR, companies were asked to provide speciated metal HAP concentrations (e.g. arsenic, cadmium, cobalt, lead, nickel, etc.) in the particulate collected by fabric filters. For more information on the selection of these facilities, see the Draft *Technical Support Document for the Secondary Aluminum Production Source Category* located in the docket. These data were then used to estimate speciated metal HAP emissions, based on the PM emissions reported in the all-company ICR. For example, if a response to the all-company ICR indicated a particular piece of equipment at a specific secondary aluminum facility had 10 tpy of PM emissions, and based on an analysis of the results of the nine-company testing ICR the EPA determined that the cobalt concentration in the fabric filter particulate matter catch was 20 parts-per-million (ppm), the estimated emissions of cobalt would be 0.0002 tpy. In the nine-company testing ICR, companies were also required to conduct speciated organic HAP and THC emission testing for the two types of equipment that have THC limits under subpart RRR, scrap dryer/delacquering/decoating kilns and thermal chip dryers. The speciated organic HAPs for which data were provided included volatile HAPs (e.g., benzene, chloroprene, toluene, etc.) and semi-volatile HAPs (anthracene, chrysene, naphthalene, etc.).

Using the reported amount of charge or production for the most recent year and the reported test results (in lb per ton of charge) from the all-company ICR, emissions were calculated. Where test results from the all-company ICR responses were expressed in terms of PM and THC surrogates, emissions were

converted to speciated metal and organic HAP emissions using the nine-company test results, as described above. Allowable and actual emissions were calculated for each piece of equipment. The derivation of allowable emissions estimates is described in Section III of this preamble.

The emissions data, calculations and risk assessment inputs for the Secondary Aluminum Production source category are described further in the memorandum *Draft Development of the RTR Risk Modeling Dataset for the Secondary Aluminum Production Source Category* which is available in the docket for this proposed rulemaking.

III. Analyses Performed

In this section we describe the analyses performed to support the proposed decisions for the RTR for this source category.

A. How did we estimate risks posed by the source category?

The EPA conducted risk assessments that provide estimates of the MIR posed by the HAP emissions for each source in the category, the HI for chronic exposures to HAP with the potential to cause noncancer health effects, and the hazard quotient (HQ) for acute exposures to HAP with the potential to cause noncancer health effects. The assessments also provided estimates of the distribution of cancer risks within the exposed populations, cancer incidence and an evaluation of the potential for adverse environmental effects for the source category. The risk assessments consisted of seven primary steps, as discussed below. The docket for this rulemaking contains the following document which provides more information on the risk assessment inputs and models: *Draft Residual Risk Assessment for the Secondary Aluminum Production Source Category*. The methods used to assess risks (as described in the six primary steps below) are consistent with those peer-reviewed by a panel of the EPA's Science Advisory Board (SAB) in 2009 and described in their peer review report issued in 2010;[3] they are also consistent with the key recommendations contained in that report.

[3] U.S. EPA SAB. *Risk and Technology Review (RTR) Risk Assessment Methodologies: For Review by the EPA's Science Advisory Board with Case Studies—MACT I Petroleum Refining Sources and Portland Cement Manufacturing,* May 2010.

1. Establishing the Nature and Magnitude of Actual Emissions and Identifying the Emissions Release Characteristics

As discussed in Section II.B. of this preamble, we used a dataset based on the estimated actual and allowable emissions as the basis for the risk assessment. This dataset was based on responses to an Information Collection Request (ICR) sent to approximately 425 facilities potentially subject to the subpart RRR NESHAP. Approximately 161 sources subject to the NESHAP responded, approximately 166 facilities confirmed that they were not subject to the NESHAP and no responses were received to approximately 51 ICRs. In addition to these responses, as described in section II.B, an earlier ICR was sent to 9 companies requiring them to provide speciated metal and organic HAP concentrations for purposes of calculating speciated HAP emissions based on reported emissions of the surrogate pollutants, THC and PM. As part of our quality assurance (QA) process, we checked the coordinates of every facility in the dataset using tools such as Google Earth. We corrected coordinates that were found to be incorrect. We also performed QA of the emissions data and release characteristics to identify outliers and then confirmed or corrected the data.

2. Establishing the Relationship Between Actual Emissions and MACT-Allowable Emissions Levels

The available emissions data in the MACT dataset include estimates of the mass of HAP actually emitted during the specified annual time period. These ''actual'' emission levels are often lower than the emission levels that a facility might be allowed to emit and still comply with the MACT standards. The emissions level allowed to be emitted by the MACT standards is referred to as the ''MACT-allowable'' emissions level. This represents the highest emissions level that could be emitted by the facility without violating the MACT standards.

We discussed the use of both MACT-allowable and actual emissions in the final Coke Oven Batteries residual risk rule (70 FR 19998–19999, April 15, 2005) and in the proposed and final Hazardous Organic NESHAP residual risk rules (71 FR 34428, June 14, 2006, and 71 FR 76609, December 21, 2006, respectively). In those previous actions, we noted that assessing the risks at the MACT-allowable level is inherently reasonable since these risks reflect the maximum level sources could emit and still comply with national emission standards. But we also explained that it is reasonable to consider actual emissions, where such data are available, in both steps of the risk analysis, in accordance with the Benzene NESHAP. (54 FR 38044, September 14, 1989.)

As discussed above, allowable and actual emissions were calculated for each piece of equipment. The estimates of actual emissions are described in Section II of this preamble.

Allowable emissions for this source category were calculated by assuming emissions were at the maximum level allowed by the MACT standard (i.e., we assume emissions would be emitted at a level equal to the MACT emission limit). Nevertheless, we note that these are conservative estimates of allowable emissions. It is unlikely that emissions would be at the maximum limit at all times because sources cannot emit HAP at a level that is exactly equal to the limit at all times and remain in compliance with the standard due to day-to-day variability in process operations and emissions. On average, facilities must emit at some level below the MACT limit to ensure that they are always in compliance.

The derivation of actual and allowable emissions estimates are discussed in more detail in the document *Draft Development of the RTR Emissions Dataset for the Secondary Aluminum Production Source Category* which is available in the docket for this proposed rulemaking.

3. Conducting Dispersion Modeling, Determining Inhalation Exposures and Estimating Individual and Population Inhalation Risks

Both long-term and short-term inhalation exposure concentrations and health risks from each facility in the source category were estimated using the Human Exposure Model (HEM) (Community and Sector HEM–3 version 1.1.0). The HEM–3 performs three primary risk assessment activities: (1) Conducting dispersion modeling to estimate the concentrations of HAP in ambient air, (2) estimating long-term and short-term inhalation exposures to individuals residing within 50 km of the modeled sources and (3) estimating individual and population-level inhalation risks using the exposure estimates and quantitative dose-response information.

The dispersion model used by HEM–3 is AERMOD, which is one of the EPA's preferred models for assessing pollutant concentrations from industrial

facilities.[4] To perform the dispersion modeling and to develop the preliminary risk estimates, HEM–3 draws on three data libraries. The first is a library of meteorological data, which is used for dispersion calculations. This library includes 1 year (1991) of hourly surface and upper air observations for more than 158 meteorological stations, selected to provide coverage of the United States and Puerto Rico. A second library of United States Census Bureau census block[5] internal point locations and populations provides the basis of human exposure calculations (Census, 2000). In addition, for each census block, the census library includes the elevation and controlling hill height, which are also used in dispersion calculations. A third library of pollutant unit risk factors and other health benchmarks is used to estimate health risks. These risk factors and health benchmarks are the latest values recommended by the EPA for HAP and other toxic air pollutants. These values are available at *http://www.epa.gov/ttn/atw/toxsource/summary.html* and are discussed in more detail later in this section.

In developing the risk assessment for chronic exposures, we used the estimated annual average ambient air concentration of each of the HAP emitted by each source for which we have emissions data in the source category. The air concentrations at each nearby census block centroid were used as a surrogate for the chronic inhalation exposure concentration for all the people who reside in that census block. We calculated the MIR for each facility as the cancer risk associated with a continuous lifetime (24 hours per day, 7 days per week, and 52 weeks per year for a 70-year period) exposure to the maximum concentration at the centroid of an inhabited census block. Individual cancer risks were calculated by multiplying the estimated lifetime exposure to the ambient concentration of each of the HAP (in micrograms per cubic meter) by its unit risk estimate (URE), which is an upper bound estimate of an individual's probability of contracting cancer over a lifetime of exposure to a concentration of 1 microgram of the pollutant per cubic meter of air. For residual risk assessments, we generally use URE values from the EPA's Integrated Risk Information System (IRIS). For carcinogenic pollutants without the EPA IRIS values, we look to other reputable sources of cancer dose-response values, often using California EPA (CalEPA) URE values, where available. In cases where new, scientifically credible dose-response values have been developed in a manner consistent with the EPA guidelines and have undergone a peer review process similar to that used by the EPA, we may use such dose-response values in place of, or in addition to, other values, if appropriate.

Incremental individual lifetime cancer risks associated with emissions from the source category were estimated as the sum of the risks for each of the carcinogenic HAP (including those classified as carcinogenic to humans, likely to be carcinogenic to humans and suggestive evidence of carcinogenic potential[6]) emitted by the modeled source. Cancer incidence and the distribution of individual cancer risks for the population within 50 km of any source were also estimated for the source category as part of these assessments by summing individual risks. A distance of 50 km is consistent with both the analysis supporting the 1989 Benzene NESHAP (54 FR 38044) and the limitations of Gaussian dispersion models, including AERMOD.

To assess risk of noncancer health effects from chronic exposures, we summed the HQ for each of the HAP that affects a common target organ system to obtain the HI for that target organ system (or target organ-specific HI, TOSHI). The HQ for chronic exposures is the estimated chronic exposure divided by the chronic reference level, which is either the EPA reference concentration (RfC), defined as ''an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime,'' or, in cases where an RfC from the EPA's IRIS database is not available, a value from the following prioritized sources: (1) The agency for Toxic Substances and Disease Registry Minimum Risk Level, which is defined as ''an estimate of daily human exposure to a substance that is likely to be without an appreciable risk of adverse effects (other than cancer) over a specified duration of exposure''; (2) the CalEPA Chronic Reference Exposure Level (REL), which is defined as ''the concentration level at or below which no adverse health effects are anticipated for a specified exposure duration;'' or (3) as noted above, a scientifically credible dose-response value that has been developed in a manner consistent with the EPA guidelines and has undergone a peer review process similar to that used by the EPA, in place of or in concert with other values.

Screening estimates of acute exposures and risks were also evaluated for each of the HAP at the point of highest off-site exposure for each facility (i.e., not just the census block centroids), assuming that a person is located at this spot at a time when both the peak (hourly) emission rates from each emission point at the facility and worst-case dispersion conditions occur. The acute HQ is the estimated acute exposure divided by the acute dose-response value. In each case, acute HQ values were calculated using best available, short-term dose-response values. These acute dose-response values, which are described below, include the acute REL, acute exposure guideline levels (AEGL) and emergency response planning guidelines (ERPG) for 1-hour exposure durations. As discussed below, we used conservative assumptions for emission rates, meteorology and exposure location for our acute analysis.

As described in the CalEPA's *Air Toxics Hot Spots Program Risk Assessment Guidelines, Part I, The Determination of Acute Reference Exposure Levels for Airborne Toxicants,* an acute REL value (*http://www.oehha.ca.gov/air/pdf/acuterel.pdf*) is defined as ''the concentration level at or below which no adverse health effects are anticipated for a specified exposure duration.'' Acute REL values are based on the most sensitive, relevant, adverse health effect reported in the medical and toxicological literature. Acute REL values are designed to protect the most sensitive sub-populations (e.g., asthmatics) by the inclusion of margins of safety. Since margins of safety are incorporated to address data gaps and uncertainties, exceeding the acute REL does not automatically indicate an adverse health impact.

[4] U.S. EPA. Revision to the *Guideline on Air Quality Models: Adoption of a Preferred General Purpose (Flat and Complex Terrain) Dispersion Model and Other Revisions* (70 FR 68218, November 9, 2005).

[5] A census block is generally the smallest geographic area for which census statistics are tabulated.

[6] These classifications also coincide with the terms ''known carcinogen, probable carcinogen and possible carcinogen,'' respectively, which are the terms advocated in the EPA's previous *Guidelines for Carcinogen Risk Assessment,* published in 1986 (51 FR 33992, September 24, 1986). Summing 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 EPA's NATA entitled, *NATA—Evaluating the National-scale Air Toxics Assessment 1996 Data—an SAB Advisory,* available at: *http://yosemite.epa.gov/sab/sabproduct.nsf/214C6E915BB04E14852570CA007A682C/$File/ecadv02001.pdf.*

AEGL values were derived in response to recommendations from the National Research Council (NRC). As described in *Standing Operating Procedures (SOP) of the National Advisory Committee on Acute Exposure Guideline Levels for Hazardous Substances* (*http://www.epa.gov/opptintr/aegl/pubs/sop.pdf*),[7] ''the NRC's previous name for acute exposure levels—community emergency exposure levels—was replaced by the term AEGL to reflect the broad application of these values to planning, response, and prevention in the community, the workplace, transportation, the military, and the remediation of Superfund sites.'' This document also states that AEGL values ''represent threshold exposure limits for the general public and are applicable to emergency exposures ranging from 10 minutes to eight hours.'' The document lays out the purpose and objectives of AEGL by stating (page 21) that ''the primary purpose of the AEGL program and the National Advisory Committee for Acute Exposure Guideline Levels for Hazardous Substances is to develop guideline levels for once-in-a-lifetime, short-term exposures to airborne concentrations of acutely toxic, high-priority chemicals.'' In detailing the intended application of AEGL values, the document states (page 31) that ''[i]t is anticipated that the AEGL values will be used for regulatory and nonregulatory purposes by U.S. Federal and state agencies and possibly the international community in conjunction with chemical emergency response, planning, and prevention programs. More specifically, the AEGL values will be used for conducting various risk assessments to aid in the development of emergency preparedness and prevention plans, as well as real-time emergency response actions, for accidental chemical releases at fixed facilities and from transport carriers.''

The AEGL–1 value is then specifically defined as ''the airborne concentration of a substance above which it is predicted that the general population, including susceptible individuals, could experience notable discomfort, irritation, or certain asymptomatic nonsensory effects. However, the effects are not disabling and are transient and reversible upon cessation of exposure.'' The document also notes (page 3) that, ''Airborne concentrations below AEGL–1 represent exposure levels that can produce mild and progressively increasing but transient and nondisabling odor, taste, and sensory irritation or certain asymptomatic, nonsensory effects.'' Similarly, the document defines AEGL–2 values as ''the airborne concentration (expressed as ppm or mg/m^3) of a substance above which it is predicted that the general population, including susceptible individuals, could experience irreversible or other serious, long-lasting adverse health effects or an impaired ability to escape.''

ERPG values are derived for use in emergency response, as described in the American Industrial Hygiene Association's document entitled, *Emergency Response Planning Guidelines (ERPG) Procedures and Responsibilities* (*http://www.aiha.org/1documents/committees/ERPSOPs2006.pdf*) which states that, ''Emergency Response Planning Guidelines were developed for emergency planning and are intended as health based guideline concentrations for single exposures to chemicals.''[8] The ERPG–1 value is defined as ''the maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to 1 hour without experiencing other than mild transient adverse health effects or without perceiving a clearly defined, objectionable odor.'' Similarly, the ERPG–2 value is defined as ''the maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to 1 hour without experiencing or developing irreversible or other serious health effects or symptoms which could impair an individual's ability to take protective action.''

As can be seen from the definitions above, the AEGL and ERPG values include the similarly defined severity levels 1 and 2. For many chemicals, a severity level 1 value AEGL or ERPG has not been developed; in these instances, higher severity level AEGL–2 or ERPG–2 values are compared to our modeled exposure levels to assess potential for acute concerns.

Acute REL values for 1-hour exposure durations are typically lower than their corresponding AEGL–1 and ERPG–1 values. Even though their definitions are slightly different, AEGL–1 values are often similar to the corresponding ERPG–1 values, and AEGL–2 values are often similar to ERPG–2 values. Maximum HQ values from our acute screening risk assessments typically result when basing them on the acute REL value for a particular pollutant. In cases where our maximum acute HQ value exceeds 1, we also report the HQ value based on the next highest acute dose-response value (usually the AEGL–1 and/or the ERPG–1 value).

To develop screening estimates of acute exposures, we developed estimates of maximum hourly emission rates by multiplying the average actual annual hourly emission rates by a factor to cover routinely variable emissions. We chose the factor to use based on process knowledge and engineering judgment and with awareness of a Texas study of short-term emissions variability, which showed that most peak emissions events, in a heavily-industrialized 4-county area (Harris, Galveston, Chambers, and Brazoria Counties, Texas) were less than twice the annual average hourly emissions rate. The highest peak emissions event was 74 times the annual average hourly emissions rate, and the 99th percentile ratio of peak hourly emissions rate to the annual average hourly emissions rate was 9.[9] This analysis is provided in Appendix 4 of the *Draft Residual Risk Assessment for Secondary Aluminum Production* which is available in the docket for this action. Considering this analysis, unless specific process knowledge or data are available to provide an alternate value, to account for more than 99 percent of the peak hourly emissions, we generally apply the assumption to most source categories that the maximum one-hour emissions rate from any source other than those resulting in fugitive dust emissions are 10 times the average annual hourly emissions rate for that source. We use a factor other than 10 in some cases if we have information that indicates that a different factor is appropriate for a particular source category. For this source category however, there was no such information available and the default factor of 10 was used in the acute screening process.

When worst-case HQ values from the initial acute screen step were less than 1, acute impacts were deemed negligible and no further analysis was performed. In the cases where any worst-case acute HQ from the screening step was greater than 1, additional site-specific data were considered to develop a more refined estimate of the potential for acute impacts of concern. However, for this source category no acute values were greater than 1 and therefore, further refinement was not performed.

Ideally, we would prefer to have continuous measurements over time to

[7] NAS, 2001. *Standing Operating Procedures for Developing Acute Exposure Levels for Hazardous Chemicals,* page 2.

[8] *ERP Committee Procedures and Responsibilities.* November 1, 2006. American Industrial Hygiene Association.

[9] See *http://www.tceq.state.tx.us/compliance/field_ops/eer/index.html* or docket to access the source of these data.

see how the emissions vary by each hour over an entire year. Having a frequency distribution of hourly emission rates over a year would allow us to perform a probabilistic analysis to estimate potential threshold exceedances and their frequency of occurrence. Such an evaluation could include a more complete statistical treatment of the key parameters and elements adopted in this screening analysis. However, we recognize that having this level of data is rare, hence our use of the multiplier approach.

To better characterize the potential health risks associated with estimated acute exposures to HAP, and in response to a key recommendation from the SAB's peer review of the EPA's RTR risk assessment methodologies,[10] we generally examine a wider range of available acute health metrics than we do for our chronic risk assessments. This is in response to the SAB's acknowledgement that there are generally more data gaps and inconsistencies in acute reference values than there are in chronic reference values.

Comparisons of the estimated maximum off-site 1-hour exposure levels are not typically made to occupational levels for the purpose of characterizing public health risks in RTR assessments. This is because they are developed for working age adults and are not generally considered protective for the general public. We note that occupational ceiling values are, for most chemicals, set at levels higher than a 1-hour AEGL–1.

4. Conducting Multipathway Exposure and Risk Screening

The potential for significant human health risks due to exposures via routes other than inhalation (i.e., multipathway exposures) and the potential for adverse environmental impacts were evaluated in a two-step process. In the first step, we determined whether any facilities emitted any HAP known to be persistent and bio-accumulative in the environment (PB–HAP). There are 14 PB–HAP compounds or compound classes identified for this screening in EPA's *Air Toxics Risk Assessment Library* (available at *http://www.epa.gov/ttn/fera/risk_atra_vol1.html*). They are cadmium compounds, chlordane, chlorinated dibenzodioxins and furans, dichlorodiphenyldichloroethylene, heptachlor, hexachlorobenzene, hexachlorocyclohexane, lead compounds, mercury compounds, methoxychlor, polychlorinated biphenyls, POM, toxaphene, and trifluralin. Since three of these PB–HAP (cadmium compounds, POM and chlorinated D/F) are emitted by at least one facility in this source category, we proceeded to the second step of the evaluation. In this step, we determined whether the facility-specific emission rates of each of the emitted PB–HAP were large enough to create the potential for significant non-inhalation human or environmental risks under, worst-case conditions. To facilitate this step, we developed emission rate thresholds for each PB–HAP using a hypothetical worst-case screening exposure scenario developed for use in conjunction with the EPA's TRIM.FaTE model. The hypothetical screening scenario was subjected to a sensitivity analysis to ensure that its key design parameters were established such that environmental media concentrations were not underestimated (i.e., to minimize the occurrence of false negatives or results that suggest that risks might be acceptable when, in fact, actual risks are high) and to also minimize the occurrence of false positives for human health endpoints. We call this application of the TRIM.FaTE model TRIM–Screen. The facility-specific emission rates of each of the PB–HAP were compared to the TRIM–Screen emission threshold values for each of the PB–HAP identified in the source category datasets to assess the potential for significant human health risks or environmental risks via non-inhalation pathways. See Section IV for results of this screening analysis.

5. Conducting Other Risk-Related Analyses: Facilitywide Assessments

To put the source category risks in context, for our residual risk reviews, we also typically examine the risks from the entire ''facility,'' where the facility includes all HAP-emitting operations within a contiguous area and under common control. In these facilitywide assessments we examine the HAP emissions not only from the source category of interest, but also emissions of HAP from all other emissions sources at the facility. For the secondary aluminum source category, a facilitywide assessment was performed for all major sources.

A facilitywide assessment was not conducted for area sources. By definition, no major sources of HAP (e.g., primary aluminum production or coil coating operations) are collocated with any of the secondary aluminum area sources. Further, at many area sources, equipment subject to the Secondary Aluminum NESHAP is the only HAP-emitting equipment. Therefore, the most significant HAP emissions from area sources were already being considered under the area source risk assessment, and low levels of HAP emissions from equipment not subject to the Secondary Aluminum NESHAP at these facilities would not contribute appreciably to the risk profile. The results of the facilitywide assessment for major sources are provided in Section IV.

6. Considering Uncertainties in Risk Assessment

Uncertainty and the potential for bias are inherent in all risk assessments, including those performed for the Secondary Aluminum source category addressed in this proposal. Although uncertainty exists, we believe that our approach, which used conservative tools and assumptions, ensures that our decisions are health-protective. A brief discussion of the uncertainties in the emissions datasets, dispersion modeling, inhalation exposure estimates and dose-response relationships follows below. A more thorough discussion of these uncertainties is included in the risk assessment documentation (referenced earlier) available in the docket for this action.

a. Uncertainties in the Emissions Datasets

Although the development of the MACT dataset involved QA/quality control processes, the accuracy of emissions values will vary depending on the source of the data, the degree to which data are incomplete or missing, the degree to which assumptions made to complete the datasets are accurate, errors in estimating emissions values and other factors. The emission estimates considered in this analysis were generally developed from one-time or periodic performance tests that do not reflect short-term fluctuations during the course of a year or variations from year to year.

The estimates of peak hourly emission rates for the acute effects screening assessment were based on a default factor of 10 applied to the average annual hourly emission rate, which is intended to account for emission fluctuations due to normal facility operations.

b. Uncertainties in Dispersion Modeling

While the analysis employed the EPA's recommended regulatory dispersion model, AERMOD, we recognize that there is uncertainty in ambient concentration estimates

[10] The SAB peer review of RTR Risk Assessment Methodologies is available at: *http://yosemite.epa.gov/sab/sabproduct.nsf/4AB3966E263D943A8525771F00668381/$File/EPA–SAB–10–007-unsigned.pdf.*

associated with any model, including AERMOD. In circumstances where we had to choose between various model options, where possible, model options (e.g., rural/urban, plume depletion, chemistry) were selected to provide an overestimate of ambient air concentrations of the HAP rather than underestimates. However, because of practicality and data limitation reasons, some factors (e.g., meteorology, building downwash) have the potential in some situations to overestimate or underestimate ambient impacts. For example, meteorological data were taken from a single year (1991), and facility locations can be a significant distance from the sites where these data were taken. Despite these uncertainties, we believe that at off-site locations and census block centroids, the approach considered in the dispersion modeling analysis should generally yield overestimates of ambient HAP concentrations.

c. Uncertainties in Inhalation Exposure

The effects of human mobility on exposures were not included in the assessment. Specifically, short-term mobility and long-term mobility between census blocks in the modeling domain were not considered.[11] The assumption of not considering short or long-term population mobility does not bias the estimate of the theoretical MIR, nor does it affect the estimate of cancer incidence since the total population number remains the same. It does, however, affect the shape of the distribution of individual risks across the affected population, shifting it toward higher estimated individual risks at the upper end and reducing the number of people estimated to be at lower risks, thereby increasing the estimated number of people at specific risk levels.

In addition, the assessment predicted the chronic exposures at the centroid of each populated census block as surrogates for the exposure concentrations for all people living in that block. Using the census block centroid to predict chronic exposures tends to over-predict exposures for people in the census block who live further from the facility, and under-predict exposures for people in the census block who live closer to the facility. Thus, using the census block centroid to predict chronic exposures may lead to a potential understatement or overstatement of the true maximum impact, but it is an unbiased estimate of average risk and incidence.

The assessments evaluate the cancer inhalation risks associated with continuous pollutant exposures over a 70-year period, which is the assumed lifetime of an individual. In reality, both the length of time that modeled emissions sources at facilities actually operate (i.e., more or less than 70 years) and the domestic growth or decline of the modeled industry (i.e., the increase or decrease in the number or size of United States facilities) will influence the risks posed by a given source category. Depending on the characteristics of the industry, these factors will, in most cases, result in an overestimate both in individual risk levels and in the total estimated number of cancer cases. However, in rare cases, where a facility maintains or increases its emission levels beyond 70 years, residents live beyond 70 years at the same location, and the residents spend most of their days at that location, then the risks could potentially be underestimated. Annual cancer incidence estimates from exposures to emissions from these sources would not be affected by uncertainty in the length of time emissions sources operate.

The exposure estimates used in these analyses assume chronic exposures to ambient levels of pollutants. Because most people spend the majority of their time indoors, actual exposures may not be as high, depending on the characteristics of the pollutants modeled. For many of the HAP, indoor levels are roughly equivalent to ambient levels, but for very reactive pollutants or larger particles, these levels are typically lower. This factor has the potential to result in an overstatement of 25 to 30 percent of exposures.[12]

In addition to the uncertainties highlighted above, there are several other factors specific to the acute exposure assessment. The accuracy of an acute inhalation exposure assessment depends on the simultaneous occurrence of independent factors that may vary greatly, such as hourly emissions rates, meteorology, and human activity patterns. In this assessment, we assume that individuals remain for 1 hour at the point of maximum ambient concentration as determined by the co-occurrence of peak emissions and worst-case meteorological conditions. These assumptions would tend to overestimate actual exposures since it is unlikely that a person would be located at the point of maximum exposure during the time of worst-case impact.

d. Uncertainties in Dose-Response Relationships

There are uncertainties inherent in the development of the dose-response values used in our risk assessments for cancer effects from chronic exposures and noncancer effects from both chronic and acute exposures. Some uncertainties may be considered quantitatively, and others generally are expressed in qualitative terms. We note as a preface to this discussion a point on dose-response uncertainty that is brought out in the *EPA 2005 Cancer Guidelines;* namely, that ''the primary goal of the EPA actions is protection of human health; accordingly, as an agency policy, risk assessment procedures, including default options that are used in the absence of scientific data to the contrary, should be health protective.'' (*EPA 2005 Cancer Guidelines,* pages 1–7.) This is the approach followed here as summarized in the next several paragraphs. A complete detailed discussion of uncertainties and variability in dose-response relationships is given in the residual risk documentation, which is available in the docket for this action.

Cancer URE values used in our risk assessments are those that have been developed to generally provide an upper bound estimate of risk. That is, they represent a ''plausible upper limit to the true value of a quantity'' (although this is usually not a true statistical confidence limit).[13] In some circumstances, the true risk could be as low as zero; however, in other circumstances, the risk could also be greater.[14] When developing an upper bound estimate of risk and to provide risk values that do not underestimate risk, health-protective default approaches are generally used. To err on the side of ensuring adequate health-protection, the EPA typically uses the upper bound estimates rather than lower bound or central tendency estimates in our risk assessments, an approach that may have limitations for other uses (e.g., priority-setting or expected benefits analysis).

Chronic noncancer reference (RfC and reference dose (RfD)) values represent chronic exposure levels that are intended to be health-protective levels. Specifically, these values provide an

[11] Short-term mobility is movement from one micro-environment to another over the course of hours or days. Long-term mobility is movement from one residence to another over the course of a lifetime.

[12] U.S. EPA. *National-Scale Air Toxics Assessment for 1996.* (EPA 453/R–01–003; January 2001; page 85.)

[13] IRIS glossary (*http://www.epa.gov/NCEA/iris/help_gloss.htm*).

[14] An exception to this is the URE for benzene, which is considered to cover a range of values, each end of which is considered to be equally plausible and which is based on maximum likelihood estimates.

estimate (with uncertainty spanning perhaps an order of magnitude) of daily oral exposure (RfD) or of a continuous inhalation exposure (RfC) to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. To derive values that are intended to be ''without appreciable risk,'' the methodology relies upon an uncertainty factor (UF) approach (U.S. EPA, 1993, 1994) which includes consideration of both uncertainty and variability. When there are gaps in the available information, UF are applied to derive reference values that are intended to protect against appreciable risk of deleterious effects. The UF are commonly default values,[15] e.g., factors of 10 or 3, used in the absence of compound-specific data; where data are available, UF may also be developed using compound-specific information. When data are limited, more assumptions are needed and more UF are used. Thus, there may be a greater tendency to overestimate risk in the sense that further study might support development of reference values that are higher (i.e., less potent) because fewer default assumptions are needed. However, for some pollutants, it is possible that risks may be underestimated. While collectively termed ''uncertainty factor,'' these factors account for a number of different quantitative considerations when using observed animal (usually rodent) or human toxicity data in the development of the RfC. The UF are intended to account for: (1) Variation in susceptibility among the members of the human population (i.e., inter-individual variability); (2) uncertainty in extrapolating from experimental animal data to humans (i.e., interspecies differences); (3) uncertainty in extrapolating from data obtained in a study with less-than-lifetime exposure (i.e., extrapolating from sub-chronic to chronic exposure); (4) uncertainty in extrapolating the observed data to obtain an estimate of the exposure associated with no adverse effects; and (5) uncertainty when the database is incomplete or there are problems with the applicability of available studies. Many of the UF used to account for variability and uncertainty in the development of acute reference values are quite similar to those developed for chronic durations, but more often they use individual UF values that may be less than 10. UF are applied based on chemical-specific or health effect-specific information (e.g., simple irritation effects do not vary appreciably between human individuals, hence a value of 3 is typically used), or based on the purpose for the reference value (see the following paragraph). The UF applied in acute reference value derivation include: (1) Heterogeneity among humans; (2) uncertainty in extrapolating from animals to humans; (3) uncertainty in lowest observed adverse effect (exposure) level to no observed adverse effect (exposure) level adjustments; and (4) uncertainty in accounting for an incomplete database on toxic effects of potential concern. Additional adjustments are often applied to account for uncertainty in extrapolation from observations at one exposure duration (e.g., 4 hours) to derive an acute reference value at another exposure duration (e.g., 1 hour).

Not all acute reference values are developed for the same purpose, and care must be taken when interpreting the results of an acute assessment of human health effects relative to the reference value or values being exceeded. Where relevant to the estimated exposures, the lack of short-term dose-response values at different levels of severity should be factored into the risk characterization as potential uncertainties.

Although every effort is made to identify peer-reviewed reference values for cancer and noncancer effects for all pollutants emitted by the sources included in this assessment, some HAP continue to have no reference values for cancer or chronic noncancer or acute effects (see table 3.1–1 of the risk assessment document available in the docket for this proposed rulemaking). Since exposures to these pollutants cannot be included in a quantitative risk estimate, an understatement of risk for these pollutants at environmental exposure levels is possible. For a group of compounds that are either unspeciated or do not have reference values for every individual compound (e.g., POM), we conservatively use the most protective reference value to estimate risk from individual compounds in the group of compounds.

Additionally, chronic reference values for several of the compounds included in this assessment are currently under the EPA IRIS review, and revised assessments may determine that these pollutants are more or less potent than the current value. We may re-evaluate residual risks for the final rulemaking if these reviews are completed prior to our taking final action for this source category and a dose-response metric changes enough to indicate that the risk assessment supporting this notice may significantly understate human health risk. More information regarding the dose-response values used in this assessment is provided in the Draft Residual Risk Assessment for the Secondary Aluminum Production Source Category, which is available in the docket.

e. Uncertainties in the Multipathway and Environmental Effects Screening Assessment

We generally assume that when exposure levels are not anticipated to adversely affect human health, they also are not anticipated to adversely affect the environment. For each source category, we generally rely on the site-specific levels of PB–HAP emissions to determine whether a full assessment of the multipathway and environmental effects is necessary. Our screening methods use worst-case scenarios to determine whether multipathway impacts might be important. The results of such a process are biased high for the purpose of screening out potential impacts. Thus, when individual pollutants or facilities screen out, we are confident that the potential for multipathway impacts is negligible. On the other hand, when individual pollutants or facilities do not screen out, it does not mean that multipollutant impacts are significant, only that we cannot rule out that possibility. For this source category, we only performed a worst-case multipathway screening assessment for PB–HAP. Thus, it is important to note that potential PB–HAP multipathway risks are biased high.

B. How did we consider the risk results in making decisions for this proposal?

In evaluating and developing standards under section 112(f)(2), as discussed in Section I.A of this preamble, we apply a two-step process to address residual risk. In the first step, the EPA determines whether risks are acceptable. This determination

[15] According to the NRC report, *Science and Judgment in Risk Assessment* (NRC, 1994) ''[Default] options are generic approaches, based on general scientific knowledge and policy judgment, that are applied to various elements of the risk assessment process when the correct scientific model is unknown or uncertain.'' The 1983 NRC report, *Risk Assessment in the Federal Government: Managing the Process,* defined default option as ''the option chosen on the basis of risk assessment policy that appears to be the best choice in the absence of data to the contrary'' (NRC, 1983a, p. 63). Therefore, default options are not rules that bind the Agency; rather, the Agency may depart from them in evaluating the risks posed by a specific substance when it believes this to be appropriate. In keeping with EPA's goal of protecting public health and the environment, default assumptions are used to ensure that risk to chemicals is not underestimated (although defaults are not intended to overtly overestimate risk). See EPA, 2004, *An Examination of EPA Risk Assessment Principles and Practices,* EPA/100/B–04/001 available at: *http://www.epa.gov/osa/pdfs/ratf-final.pdf.*

''considers all health information, including risk estimation uncertainty, and includes a presumptive limit on maximum individual lifetime [cancer] risk (MIR) [16] of approximately 1 in 10 thousand [i.e., 100 in 1 million]'' (54 FR at 38045). In the second step of the process, the EPA sets the standard at a level that provides an ample margin of safety ''in consideration of all health information, including the number of persons at risk levels higher than approximately one in one million, as well as other relevant factors, including costs and economic impacts, technological feasibility, and other factors relevant to each particular decision'' *Id.*

In past residual risk actions, the EPA has presented and considered a number of human health risk metrics associated with emissions from the category under review, including: the MIR; the numbers of persons in various risk ranges; cancer incidence; the maximum non-cancer hazard index (HI); and the maximum acute non-cancer hazard (72 FR 25138, May 3, 2007; 71 FR 42724, July 27, 2006). In more recent proposals the EPA also presented and considered additional measures of health information, such as estimates of the risks associated with the maximum level of emissions which might be allowed by the current MACT standards (see, e.g., 76 FR 72770, November 25, 2011, 76 FR 72508, November 23, 2011, 75 FR 65068, October 21, 2010, and 75 FR 80220, December 21, 2010). The EPA also discussed and considered risk estimation uncertainties. The EPA is providing this same type of information in support of the proposed determinations described in this **Federal Register** notice.

The agency is considering all available health information to inform our determinations of risk acceptability and ample margin of safety under CAA section 112(f). Specifically, as explained in the Benzene NESHAP, ''the first step judgment on acceptability cannot be reduced to any single factor'' and thus ''[t]he Administrator believes that the acceptability of risk under [previous] section 112 is best judged on the basis of a broad set of health risk measures and information'' (54 FR at 38046). Similarly, with regard to making the ample margin of safety determination, as stated in the Benzene NESHAP ''[in the ample margin decision, the agency again considers all of the health risk and other health information considered in the first step. Beyond that information, additional factors relating to the appropriate level of control will also be considered, including cost and economic impacts of controls, technological feasibility, uncertainties, and any other relevant factors.'' *Id.*

The agency acknowledges that the Benzene NESHAP provides flexibility regarding what factors the EPA might consider in making determinations and how these factors might be weighed for each source category. In responding to comment on our policy under the Benzene NESHAP, the EPA explained that: ''The policy chosen by the Administrator permits consideration of multiple measures of health risk. Not only can the MIR figure be considered, but also incidence, the presence of non-cancer health effects, and the uncertainties of the risk estimates. In this way, the effect on the most exposed individuals can be reviewed as well as the impact on the general public. These factors can then be weighed in each individual case. This approach complies with the *Vinyl Chloride* mandate that the Administrator ascertain an acceptable level of risk to the public by employing [her] expertise to assess available data. It also complies with the Congressional intent behind the CAA, which did not exclude the use of any particular measure of public health risk from the EPA's consideration with respect to CAA section 112 regulations, and, thereby, implicitly permits consideration of any and all measures of health risk which the Administrator, in [her] judgment, believes are appropriate to determining what will 'protect the public health' '' (54 FR at 38057).

For example, the level of the MIR is only one factor to be weighed in determining acceptability of risks. The Benzene NESHAP explained that ''an MIR of approximately 1-in-10 thousand should ordinarily be the upper end of the range of acceptability. As risks increase above this benchmark, they become presumptively less acceptable under CAA section 112, and would be weighed with the other health risk measures and information in making an overall judgment on acceptability. Or, the agency may find, in a particular case, that a risk that includes MIR less than the presumptively acceptable level is unacceptable in the light of other health risk factors'' (54 FR at 38045). Similarly, with regard to the ample margin of safety analysis, the EPA stated in the Benzene NESHAP that: ''the EPA believes the relative weight of the many factors that can be considered in selecting an ample margin of safety can only be determined for each specific source category. This occurs mainly because technological and economic factors (along with the health-related factors) vary from source category to source category'' (54 FR at 38061).

The EPA wishes to point out that certain health information has not been considered to date in making residual risk determinations. In assessing risks to populations in the vicinity of the facilities in each category, we present estimates of risk associated with HAP emissions from the source category alone (source category risk estimates) and HAP emissions from the entire facility at which the covered source category is located (facilitywide risk estimates). We do not attempt to characterize the risks associated with all HAP emissions impacting the populations living near the sources in these categories. That is, at this time, we do not attempt to quantify those HAP risks that may be associated with emissions from other facilities that do not include the source category in question, mobile source emissions, natural source emissions, persistent environmental pollution, or atmospheric transformation in the vicinity of the sources in these categories.

The agency understands the potential importance of considering an individual's total exposure to HAP in addition to considering exposure to HAP emissions from the source category and facility. This is particularly important when assessing non-cancer risks, where pollutant-specific exposure health reference levels (*e.g.,* Reference Concentrations (RfCs)) are based on the assumption that thresholds exist for adverse health effects. For example, the agency recognizes that, although exposures attributable to emissions from a source category or facility alone may not indicate the potential for increased risk of adverse non-cancer health effects in a population, the exposures resulting from emissions from the facility in combination with emissions from all of the other sources (*e.g.,* other facilities) to which an individual is exposed may be sufficient to result in increased risk of adverse non-cancer health effects. In May 2010, the Science Advisory Board (SAB) advised us ''* * * that RTR assessments will be most useful to decision makers and communities if results are presented in the broader context of aggregate and cumulative risks, including background concentrations and contributions from other sources in the area.'' [17]

[16] Although defined as ''maximum individual risk,'' MIR refers only to cancer risk. MIR, one metric for assessing cancer risk, is the estimated risk were an individual exposed to the maximum level of a pollutant for a lifetime.

[17] The EPA's responses to this and all other key recommendations of the SAB's advisory on RTR risk assessment methodologies (which is available at: *http://yosemite.epa.gov/sab/sabproduct.nsf/*

While we are interested in placing source category and facilitywide HAP risks in the context of total HAP risks from all sources combined in the vicinity of each source, we are concerned about the uncertainties of doing so. At this point, we believe that such estimates of total HAP risks will have significantly greater associated uncertainties than for the source category or facilitywide estimates hence compounding the uncertainty in any such comparison. This is because we have not conducted a detailed technical review of HAP emissions data for source categories and facilities that have not previously undergone an RTR review or are not currently undergoing such review. We are requesting comment on whether and how best to estimate and evaluate total HAP exposure in our assessments and, in particular, on whether and how it might be appropriate to use information from EPA's National Air Toxics Assessment (NATA) to support such estimates. We are also seeking comment on how best to consider various types and scales of risk estimates when making our acceptability and ample margin of safety determinations under CAA section 112(f).

C. How did we perform the technology review?

Our technology review focused on the identification and evaluation of developments in practices, processes, and control technologies that have occurred since the Secondary Aluminum Production NESHAP was promulgated. In cases where the technology review identified such developments, we conducted an analysis of the technical feasibility of applying these developments, along with the estimated impacts (costs, emissions reductions, risk reductions, etc.) of applying these developments. We then made decisions on whether it is appropriate or necessary to propose amendments to the 2000 NESHAP to require any of the identified developments.

Based on our analyses of the data and information collected from industry and the trade organization representing facilities subject to the NESHAP, our general understanding of the industry, and other available information in the literature on potential controls for this industry, we identified several new developments in practices, processes, and control technologies. For the purpose of this exercise, we considered any of the following to be a ''development'':

- Any add-on control technology or other equipment that was not identified and considered during development of the 2000 Secondary Aluminum Production NESHAP.
- Any improvements in add-on control technology or other equipment (that were identified and considered during development of the 2000 Secondary Aluminum Production NESHAP) that could result in significant additional emissions reduction.
- Any work practice or operational procedure that was not identified or considered during development of the 2000 Secondary Aluminum Production NESHAP.
- Any process change or pollution prevention alternative that could be broadly applied to the industry and that was not identified or considered during development of the 2000 Secondary Aluminum Production NESHAP.

In addition to reviewing the practices, processes, or control technologies that were not considered at the time we developed the 2000 NESHAP, we reviewed a variety of data sources in our evaluation of whether there were additional practices, processes, or controls to consider for the Secondary Aluminum Production industry. Among the data sources we reviewed were the NESHAP for various industries that were promulgated after the 2000 NESHAP. We reviewed the regulatory requirements and/or technical analyses associated with these regulatory actions to identify any practices, processes, and control technologies considered in these efforts that could possibly be applied to emissions sources in the Secondary Aluminum Production source category, as well as the costs, non-air impacts, and energy implications associated with the use of these technologies.

Additionally, we requested information from facilities regarding developments in practices, processes, or control technology. Finally, we reviewed other information sources, such as State or local permitting agency databases and industry-supported databases. In particular, we consulted the EPA's RACT/BACT/LAER Clearinghouse (RBLC) to identify potential technology advances. Control technologies classified as RACT (Reasonably Available Control Technology), BACT (Best Available Control Technology), or LAER (Lowest Achievable Emissions Rate) apply to stationary sources depending on whether the sources are existing or new and on the size, age, and location of the facility. BACT and LAER (and sometimes RACT) are determined on a case-by-case basis, usually by State or local permitting agencies. The EPA established the RBLC to provide a central database of air pollution technology information (including technologies required in source-specific permits) to promote the sharing of information among permitting agencies and to aid in identifying future possible control technology options that might apply broadly to numerous sources within a category or apply only on a source-by-source basis. The RBLC contains over 5,000 air pollution control permit determinations that can help identify appropriate technologies to mitigate many air pollutant emissions streams. We searched this database to determine whether it contained any practices, processes or control technologies for the types of processes covered by the Secondary Aluminum Production NESHAP. No such practices, processes or control technologies were identified in this database.

D. What other issues are we addressing in this proposal?

In addition to the analyses described above, we also reviewed other aspects of the MACT standards for possible revision as appropriate and necessary. Based on this review we have identified aspects of the MACT standards that we believe need revision.

This includes proposing revisions to the startup, shutdown and malfunction (SSM) provisions of the MACT rule in order to ensure that they are consistent with the court decision in *Sierra Club* v. *EPA,* 551 F. 3d 1019 (D.C. Cir. 2008).

We are also proposing changes to the rule related to affirmative defense for violation of an emission limit during a malfunction. We are proposing other changes to address HF emissions, fugitive emissions during testing and numerous clarifications and corrections related to the existing provisions in the rule. Descriptions of each issue and the proposed revision to address the issue are presented in Section IV of this preamble.

IV. Analytical Results and Proposed Decisions

This section of the preamble provides the results of our RTR for the Secondary Aluminum Production source category and our proposed decisions concerning changes to the Secondary Aluminum Production NESHAP.

A. What are the results of the risk assessments?

For major sources in the Secondary Aluminum source category, we

4AB3966E263D943A8525771F00668381/$File/EPA-SAB-10-007-unsigned.pdf) are outlined in a memo to this rulemaking docket from David Guinnup, UESPA/OAQPS entitled, *EPA's Actions in Response to the Key Recommendations of the SAB Review of RTR Risk Assessment Methodologies.*

conducted an inhalation risk assessment for all HAP emitted. In addition, we performed a facilitywide risk assessment for the major sources in the secondary aluminum source category. For area sources, we conducted an inhalation risk assessment for D/F since this is the only HAP covered by the subpart RRR MACT standards at area sources. For all sources, we conducted multipathway screening analyses for PB–HAP emitted (e.g., D/F). Although there are 53 major sources and 108 area sources covered by the subpart RRR MACT standards, 52 major sources and 103 area sources were modeled due to the other sources' lack of equipment subject to the applicable emission standards. Results of the risk assessment are presented briefly below and in more detail in the residual risk documentation referenced in Section III of this preamble, which is available in the docket for this action.

Table 4 of this preamble provides an overall summary of the results of the inhalation risk assessment.

TABLE 4—SECONDARY ALUMINUM PRODUCTION INHALATION RISK ASSESSMENT RESULTS

Category & number of facilities modeled	Maximum individual cancer risk (in 1 million) [1]		Estimated population at increased risk of cancer ≥ 1 in 1 million [4]	Estimated annual cancer incidence (cases per year) [4]	Maximum chronic non-cancer TOSHI [2]		Worst-case maximum refined screening acute non-cancer HQ [3]
	Based on actual emissions level	Based on allowable emissions level			Based on actual emissions level	Based on allowable emissions level	
Major Source (52).	1	20	2	0.0006	0.05	1	HQ_{REL} 0.7 (HCl)
Area Source (103).	0.4	6	0	0.0006	0.0003	0.005	
Facility-wide Major Source.	20	.....	62,000	0.006	0.4	.....	

[1] Estimated maximum individual excess lifetime cancer risk due to HAP emissions from the source category. We did not have allowable emissions information at the facilitywide level, therefore, risk estimates based on facilitywide allowable emissions were not calculated.
[2] Maximum TOSHI. The target organ with the highest TOSHI for the secondary aluminum source category is the respiratory system.
[3] There is no acute dose-response value for dioxins, thus an acute HQ value for area sources was not calculated. See Section III.B of this preamble for explanations of acute dose-response values.
[4] These estimates are based on actual emissions.

The results of the chronic inhalation cancer risk assessment for major sources indicate that the maximum lifetime individual cancer risk, considering actual emissions, could be up to 1 in 1 million, driven by dioxin emissions. The maximum cancer risks for this source category exceeded a cancer risk of 1 in 1 million at 1 of 52 facilities. The total estimated cancer incidence from this source category based on actual emission levels is 0.0006 excess cancer cases per year, or one excess case in every 1,666 years. No people were estimated to have cancer risks above 10 in a million and approximately 2 people were estimated to have cancer risks above 1 in 1 million considering all major source facilities in this source category. Based on MACT-allowable emissions for the major sources in this category, the MIR could be up to 20 in 1 million.

With respect to chronic inhalation noncancer risk from major sources, we estimate a maximum TOSHI value of 0.05 for the Secondary Aluminum source category, primarily from hydrochloric acid from Group 1 furnaces. Considering MACT-allowable emissions, this maximum TOSHI value is estimated to be 1. Moreover, our worst-case highest acute screening value for major sources was 0.7 based on the REL for HCL.

Considering facility wide emissions at the 52 major sources, the MIR is estimated to be up to 20 in 1 million, the estimated annual incidence is 0.006 cases per year, and the chronic non-cancer TOSHI value is calculated to be 0.4.

In addition, we estimated risks associated with dioxin emissions at the 103 area sources in the Secondary Aluminum Production source category. The results of the chronic inhalation cancer risk assessment indicate that the maximum lifetime individual cancer risk could be up to 0.4 in 1 million and an estimated annual incidence of 0.0006 cases per year. Considering MACT-allowable emissions, the MIR could be up to 6 in 1 million. With respect to chronic inhalation noncancer risk from D/F emissions at area sources, we estimate a maximum TOSHI value of 0.0003. Considering MACT-allowable emissions, this maximum TOSHI value is estimated to be 0.005 for area sources.

In addition to the analyses presented above, to screen for potential multipathway effects from emissions of PB–HAP (such as cadmium, dioxins and PAHs) we compared actual emission rates from major source facilities in this source category to the screening values for these PB HAP described above (see Section III(A)(4)). For dioxins, we also screened for potential multipathway effects from emissions of D/F from area sources by comparing the estimated actual emission rates from these area sources to the screening value for D/F described above. (see Risk Assessment Document Appendix 4 for a more detailed discussion of screening emission rates). Results of this worst-case screen estimate that actual POM emissions from 10 of the 52 major source facilities exceed the POM screening emission rate. With respect to D/F, of the 46 major sources that emitted dioxins, 39 exceeded our screening emission rate. Similarly, 76 out of 103 area sources exceeded our D/F screening rate. These exceedances of the worst-case multipathway screening level for POM and dioxins indicate that there may be potential multipathway impacts of concern due to emissions of POM and dioxins. In general, emission rates below the worst-case multipathway screening level indicate no significant potential for multipathway-related health or environmental effects; whereas emission levels above this worst-case screening level only indicate the potential for multipathway-related health or environmental risks of concern based on a worst-case scenario. Thus, we note that these screening values are biased high for purposes of screening and are subject to significant uncertainties. As such, they do not represent refined estimates of risk and thus, do not necessarily indicate that potential multipathway risks from the source category may be a concern; we can only say that we cannot rule them out.

With respect to the potential for adverse environmental effects from non PB–HAP, we note that for both major

and area sources all chronic non-cancer HQ values for all pollutants considering actual emissions are well below 1 using human health reference values. Thus, we believe that it is unlikely that adverse environmental effects would occur at the actual HAP concentrations estimated in our human health risk assessment.

B. What are our proposed decisions regarding risk acceptability and ample margin of safety?

1. Risk Acceptability

As noted in Section III.C of this preamble, we weigh all health risk factors in our risk acceptability determination, including the MIR, the numbers of persons in various risk ranges, cancer incidence, the maximum noncancer HI, the maximum acute noncancer hazard, the extent of noncancer risks, the potential for adverse environmental effects, distribution of risks in the exposed population, and risk estimation uncertainties (54 FR 38044, September 14, 1989).

For the Secondary Aluminum Production source category, the risk analysis indicates that the cancer risks to the individual most exposed could be up to 1 in 1 million due to actual emissions and up to 20 in 1 million due to MACT-allowable emissions. These risks are considerably less than 100 in 1 million, which is the presumptive upper limit of acceptable risk. The risk analysis also shows very low cancer incidence (0.0006 cases per year), as well as no potential for adverse chronic or acute non-cancer health effects. In addition, the risk assessment indicates no significant potential for adverse environmental effects.

In addition to the analyses presented above, to screen for potential multipathway effects from emissions of D/F and POM, we compared the estimated actual emission rates from facilities in this source category to the multipathway screening levels described in section III.B. With respect to POM and dioxins, both major and area sources in the category exceeded our worst-case screening levels. However, we note that this is a worst-case conservative screening level analysis, therefore these results are biased high for purposes of screening and are subject to significant uncertainties. Moreover, we note that due to data limitations we were unable to further refine this worst-case screening scenario. As such, they do not necessarily indicate that significant multipathway risks actually exist at secondary aluminum facilities, only that we cannot rule them out as a possibility. With regard to facilitywide multipathway risk, based on the low level of risk identified for the source category, a facilitywide multipathway risk analysis was not conducted for this source category.

Considering all of the health risk information and factors discussed above, including the uncertainties discussed in section IV.A.7 of this preamble, we propose that the risks from the Secondary Aluminum Production source category are acceptable.

2. Ample Margin of Safety Analysis

We next considered whether the existing MACT standard provides an ample margin of safety to protect public health. Under the ample margin of safety analysis, we evaluated the cost and feasibility of available control technologies and other measures (including the controls, measures and costs reviewed under the technology review) that could be applied in this source category to further reduce the risks (or potential risks) due to emissions of HAP identified in our risk assessment, along with all of the health risks and other health information considered in the risk acceptability determination described above. In this analysis we considered the results of the technology review, risk assessment and other aspects of our MACT rule review to determine whether there are any cost-effective controls or other measures that would reduce emissions further to provide an ample margin of safety with respect to the risks associated with these emissions.

For POM, THC and metal HAP emissions, our risk analysis indicated very low potential for risk from the facilities in the source category. Our technology review did not identify any new practices, controls or process options that are being used in this industry or in other industries that would be cost-effective for further reduction of these emissions. Based on the estimated low risk levels and absence of new practices or control options, we conclude that the provisions of the current MACT provide for an ample margin of safety for public health with respect to emissions of POM, THC and metal HAP.

Our multipathway screening analysis results indicated exceedances of the worst-case screening levels which do not necessarily indicate any risks, however, they do suggest a potential for risks that cannot be ruled out. To evaluate the potential to reduce D/F emissions to ensure an ample margin of safety, our analysis for D/F focused on two options: (1) Lowering the existing D/F limit from 15 to 10 μg TEQ/Mg feed for Group 1 furnaces processing other than clean charge at all facilities; and (2) lowering the existing D/F limit for Group 1 furnaces processing other than clean charge, after applying a subcategorization based on facility production capacity. The lower D/F limits potentially could be met by using an activated carbon injection (ACI) system. With regard to the option of lowering the emission limit to 10 μg TEQ/Mg feed for Group 1 furnaces handling other than clean charge, we estimate that about 11 facilities would need to reduce their D/F emissions and that the costs would be about $5.9 million in total capital costs with total annualized costs of about $2.7 million. This option would achieve an estimated 1.66 grams TEQ reduction of D/F emissions with an overall cost-effectiveness of about $1.61 million per gram D/F TEQ. The second option of lowering the emission limit based on a subcategorization according to facility production capacity yielded cost-effectiveness estimates of greater than $1 million per gram D/F TEQ reduced. Furthermore, our analysis indicates that these options would not result in significant emissions reductions and would not, therefore, result in significant changes to the potential risk levels. After considering the costs and the small reductions that would be achieved, we have decided not to propose any of these options. For more information, please refer to the Draft Technical Document for the Secondary Aluminum Production Source Category that is available in the public docket for this proposed rulemaking.

We also evaluated possible options based on work practices to achieve further emissions reductions. The current subpart RRR NESHAP includes work practices to minimize D/F emissions which include scrap inspection, limitations on materials processed by group 2 furnaces, temperature and residence time requirements for afterburners controlling sweat furnaces, labeling requirements, capture/collection requirements, and requirements for an operations, maintenance and monitoring plan that contains details on the proper operation and maintenance of processes and control equipment. We searched for and evaluated other possible work practices such as good combustion practices, better scrap inspection and cleaning, and process monitoring. However, none of these potential work practices were determined to be feasible and effective in reducing D/F emissions

for this source category. Thus, we did not identify any feasible or applicable work practices for this industry beyond those that are currently in the MACT rule. Further detail on work practices and control options are provided in the Draft Technology Review for the Secondary Aluminum Production Source Category, which is available in the docket.

In accordance with the approach established in the Benzene NESHAP, we weighed all health risk information and factors considered in the risk acceptability determination, including uncertainties, along with the cost and feasibility of control technologies and other measures that could be applied in this source category, in making our ample margin of safety determination. In summary, we did not identify any cost-effective approaches to further reduce POM, THC, metal HAP or D/F emissions beyond the reductions that are already being achieved by the current NESHAP. Further, our analysis indicates that none of the options considered would result in significant emissions reductions and would not, therefore, result in significant changes to the potential risk levels.

Because of the high cost associated with the use of activated carbon injection systems and because work practices are already required to help ensure low emissions, we propose that the existing MACT standards provide an ample margin of safety to protect public health and prevent an adverse environmental effect.

C. What are the results and proposed decisions based on our technology review?

As described above, 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. There have been some developments in practices, processes, or control technologies that have been implemented in this source category since promulgation of the current NESHAP. However, based on information available to the EPA, these technologies do not clearly reduce HAP emissions relative to technologies that were considered by the EPA when promulgating the Secondary Aluminum Production NESHAP in 2000. In addition, we evaluated whether lime-injection fabric filters with activated carbon injection could be used to further reduce D/F from group 1 furnaces in a cost-effective manner.

At least one company supplies multichamber furnaces that combine the functions of a delacquering kiln and a melting furnace. At least 16 of these furnaces are in operation in Europe, Asia and the Middle East, however emission test data for these facilities is not available. One furnace of this type is presently operating in the U.S. and is permitted as a group 1 furnace handling other than clean charge.

However, the limited D/F emission test data available for the one operating U.S. multichamber furnace is within the range of test data for Group 1 furnaces and delacquering kilns that are in compliance with subpart RRR using control technologies considered by the EPA in the subpart RRR NESHAP. Based on available information it is not clear that this technology would reduce HAP emissions relative to technologies that were considered by the EPA in promulgating the subpart RRR NESHAP and are already used by other facilities. Based on our analysis, we conclude that it would not be appropriate at this time to revise subpart RRR standards based on use of this technology.

Eddy current separators are used to separate a concentrated aluminum fraction from a heterogeneous scrap feed. These units operate at ambient temperature and emit no D/F or other gaseous pollutants. They are used on the material output from mechanical shredders that shred automobiles and appliances (not on the scrap shredders used in the secondary aluminum industry). These units can potentially decrease the need for sweat furnaces. However, the product of eddy current separators is not clean charge, as with a sweat furnace. Therefore, the product of eddy current separators must undergo further processing to produce clean charge, and it is not possible to directly compare eddy current separators with sweat furnaces.

Catalytic filtration systems, including catalytic filter bags, are available to reduce D/F emissions. These bags incorporate an expanded polytetrafluoroethylene membrane coated with a precious metal catalyst which promotes the oxidation of D/F. The manufacturer claims that this system is installed in over 100 applications around the world, including at least 1 secondary aluminum processing plant. However, no respondents to our all-company ICR reported using this technology and we have no data on the D/F emission levels that can be achieved at secondary aluminum production facilities using this technology. Therefore we cannot conclude that they are more effective at reducing D/F emissions than the control technologies considered by the EPA in the 2000 subpart RRR NESHAP. We therefore conclude, based on information available to the EPA, that catalytic filtration systems are not at present a demonstrated control technology that should be used as the technical basis to require more stringent emission limits for the secondary aluminum production source category.

We also evaluated the potential to lower D/F emissions under the technology review by lowering the emissions limits based on the broader use of activated carbon injection technology. Under this analysis, we evaluated the same approach that was evaluated under the ample margin of safety analysis described in section IV.B. In summary, we evaluated two main options, as follows: (1) Lower the existing D/F limit from 15 to 10 μg TEQ/Mg feed for Group 1 furnaces processing other than clean charge at all facilities; and (2) lower the existing D/F limit for Group 1 furnaces processing other than clean charge, after applying a subcategorization based on facility production capacity. The lower D/F emissions limits potentially could be met by using an activated carbon injection (ACI) system. With regard to the option of lowering the emission limit to 10 μg TEQ/Mg feed for Group 1 furnaces handling other than clean charge, we estimate that about 11 facilities would need to reduce their D/F emissions and that the costs would be about $5.9 million in total capital costs with total annualized costs of about $2.7 million. This option would achieve an estimated 1.66 grams TEQ reduction of D/F emissions with an overall cost-effectiveness of about $1.61 million per gram D/F TEQ. The second option of lowering the emission limit based on a subcategorization according to facility production capacity yielded cost-effectiveness estimates of greater than $1 million per gram D/F TEQ reduced. Furthermore, our analysis indicates that these options would not result in significant emissions reductions. After considering the compliance costs and the small associated emission reductions that would be achieved, we are not proposing revised subpart RRR standards based on either of these options that rely on the use of ACI

injection technology under section 112(d)(6) of the CAA.

Overall, based on our review of developments in practices, processes, and control technologies, we have not identified any control approaches that clearly reduce HAP emissions in a cost-effective manner relative to technologies that were available and considered by the EPA at the time of promulgation of the Secondary Aluminum Production NESHAP in 2000. Therefore, we are not proposing any revisions to the NESHAP as a result of our technology review. Additional details regarding these analyses can be found in the following technical document for this action which is available in the docket: *Draft Technology Review for the Secondary Aluminum Production Source Category.*

D. What other actions are we proposing?

This section discusses revisions that are being proposed to correct and clarify provisions in the rule as well as solicitations of comments and requests for additional information. We are proposing revisions to the rule to address SSM provisions within the rule that were vacated by a court ruling and we are adding a requirement for electronic submission of all test results to increase the ease and efficiency of data submittal and improve data accessibility. In addition, since promulgation of the subpart RRR NESHAP in March 2000 (65 FR 15689), we have received recommendations and suggestions from individual representatives from state regulatory agencies and industry, as well as within EPA, to correct errors in the rule and to help clarify the intent and implementation of the rule. Table 5 provides a summary of these proposed changes. Following Table 5 are detailed descriptions of the proposed revisions.

TABLE 5—SUMMARY OF TECHNICAL CORRECTIONS/CLARIFICATIONS TO THE SECONDARY ALUMINUM PRODUCTION NESHAP

Correction/Clarification	Description
1. Startup, shutdown and malfunctions (63.1503, 63.1506(l) and (m), 63.1506(q),and 63.1520).	• Addresses vacated General Provision (GP) requirements. • Deletes references to vacated GP sections. • Requires all sources to comply with emission limits including during periods of startup and shutdown. • Adds definition for affirmative defense. Adds affirmative defense provisions for malfunctions.
2. Electronic Reporting (63.1516(b)(3))	• Requires owners and operators to report performance test results through the EPA Electronic Reporting System (ERT).
3. ACGIH Guidelines	• The capture and collection provision of § 63.1506(c)(1) that reference the ''Industrial Ventilation: A Manual of Recommended Practice'', is revised to allow 23rd or 27th Editions and take out specific references to chapters 3 and 5. • Requests comments on methods other than ACGIH Guidelines to ensure capture and collection and alternatives to the currently required hooding requirements.
4. Scrap Inspection Program for Group 1 Furnace without Add-on Air Pollutions Control Devices (63.1510(p)).	• Considering improvements to scrap inspection program. • Requesting comments and information.
5. Multiple Tests for Worst Case Scenarios (63.1511(b)(6)).	• Clarifies that multiple tests may be required to reflect the range of emissions likely for each regulated pollutant.
6. Lime Injection Rate Verification (63.1510(i)(4))	• Requires verification of the lime mass injection rate at least once per month.
7. Flux Monitoring (63.1510(j)(4))	• Clarifies that solid flux must be tracked at each addition during the cycle or time period used in the performance test.
8. Cover fluxes (63.1503)	• Clarifies definition of cover flux.
9. Capture and Collection Systems (63.1503)	• Adds a definition of capture and collection systems.
10. Bale Breakers (63.1503)	• Adds a definition of a bale breaker to clarify that a bale breaker is not a scrap shredder.
11. Bag Leak Detection Systems (BLDS) (63.1510(f)(1)(ii)).	• Removes reference to an outdated guidance document and requires use of manufacturer's maintenance and operating instructions.
12. Sidewell Furnaces (63.1510(n)(1))	• Requires visual inspection after each tap rather than after each charge. • Allows other means of measuring molten metal level.
13. Testing Representative Units (63.1511(f)(6))	• Clarifies that all performance test runs must be conducted on the same affected source or emission unit.
14. Inital Performance Tests (63.1511(b))	• Revises performance test requirements to allow 180 days to conduct initial performance test consistent with GP.
15. Definition of Scrap Dryer/Delacquering Kiln/Decoating Kiln and Scrap Shredder (63.1503).	• Clarifies definition of Scrap Dryer/Delacquering/Decoating Kiln to include delamination of aluminum from paper or plastic. • Clarifies definition of scrap shredder to include granulation and shearing.
16. Transporting metal (63.1503)	• Clarifies definition of Group 2 furnace to exclude pots used to transport metal.
17. Specifications for Cleaning Processes	• Not proposing cleaning specifications at this time.

TABLE 5—SUMMARY OF TECHNICAL CORRECTIONS/CLARIFICATIONS TO THE SECONDARY ALUMINUM PRODUCTION NESHAP—Continued

Correction/Clarification	Description
	• Invites comments and solicits information on appropriate cleaning procedures.
18. HF Emissions Compliance Provisions (63.1503, 63.1505, 63.1511(c)(9), 63.1513).	• Adds definition of HF. • Adds emissions standard for HF. • Requires EPA Method 26A for measurement of HF.
19. Uncontrolled furnaces that do not Comply with ACGIH Hooding Guidelines (63.1512(e)(4)).	• Requires owner/operators with uncontrolled group 1 furnaces to construct hoods for performance testing to demonstrate compliance, or assume 67 percent capture efficiency if hooding does not meet ACGIH guidelines. • Seeks comments on alternative approaches.
20. Clarify the possible Number of SAPUs (63.1503)	• Revises ''SAPU'' definition to clarify there can be more than 1 new SAPU.
21. Aluminum Scrap Containing Anodizing Dyes or Sealants (63.1503).	• Clarifies ''clean charge'' definition to exclude anodized material that contains dyes or sealants that contain organic material.
22. Afterburner Residence Time (63.1503)	• Clarifies ''residence time'' definition to include refractory lined ductwork up to the control thermocouple.
23. SAPU Feed/Charge Rate (63.1505(k))	• Clarifies that daily throughput must be used to calculate allowable emissions within the SAPU.
24. Changing Furnace Classifications (§ 63.1514)	• Allows owners/operators to change furnace classifications. • Specifies requirements for changing.
25. Dross Only Versus Dross/Scrap Furnaces	• Clarifies that owners/operators have the option to conduct performance tests under different operating conditions to address charge/flux changes.
26. Annual Hood Inspections (63.1510(d)(2))	• Clarifies that annual hood inspections include flow rate measurements.
27. Applicability of Rule to Area Sources (63.1506(a), 63.1510(a)).	• Clarifies which operating, monitoring and other standards apply to area sources.
28. Altering Parameters during Testing with New Scrap Streams (63.1511(b)(1)).	• Clarifies that owners/operators can deviate from established parametric limits during performance testing being done to establish new parametric limits.
29. Controlled Furnaces that are Temporarily Idled (63.1506(q)(5)).	• Allows control device for furnaces to be shut down if furnace will remain idle for 24 hours or longer.
30. Annual Compliance Certification for Area Sources (63.1516(c)).	• Clarifies that area sources must submit an annual compliance certification.

1. Startup, Shutdown and Malfunctions

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 of startup, shutdown and malfunction (SSM). *Sierra Club* v. *EPA,* 551 F.3d 1019 (D.C. Cir. 2008). Specifically, the Court vacated the SSM exemption contained in 40 CFR 63.6(f)(1) and 40 CFR 63.6(h)(1), that are part of a regulation, commonly referred to as the ''General Provisions Rule,'' that the EPA promulgated under CAA section 112. When incorporated into CAA Section 112(d) regulations for specific source categories, these two provisions exempt sources from the requirement to comply with the otherwise applicable CAA section 112(d) emission standard during periods of SSM.

We are proposing the elimination of the SSM exemption in this rule. Consistent with *Sierra Club* v. *EPA,* the EPA is proposing standards in this rule that apply at all times. We are also proposing several revisions to Appendix A to subpart RRR of part 63 (the General Provisions Applicability table). For example, we are proposing to eliminate the incorporation of the General Provisions' requirement that the source develop an SSM plan. We also are proposing to eliminate or revise certain recordkeeping and reporting requirements related to the SSM exemption. The EPA has attempted to ensure that we have not included in the proposed regulatory language any provisions that are inappropriate, unnecessary, or redundant in the absence of the SSM exemption. We are specifically seeking comment on whether there are any such provisions that we have inadvertently incorporated or overlooked.

In proposing standards in this rule, the EPA has taken into account startup and shutdown periods and is proposing standards for startup and shutdown periods for all process units.

We are proposing that the subpart RRR standards apply at all times, including periods of startup and shutdown. Because the scrap processed at secondary aluminum production facilities is the source of emissions, we expect that emissions during startup and shutdown would be no higher and probably much lower than emissions during normal operations since no scrap would be processed. We know of no reason why the existing standards should not apply at all times. For production processes in the secondary aluminum production source category where the standards are expressed in units of pounds per ton of feed or similar units (i.e. thermal chip dyers, scrap dryer/delacquering kiln/decoating kilns, dross-only furnaces, in-line

fluxers using reactive flux, and group 1 furnaces), we are proposing certain methods for demonstrating compliance with those limits, as discussed further in the *Technical Document for the Secondary Aluminum Production Source Category* that is available in the docket for this proposed rulemaking.

We solicit comment on the proposed standards during startup and shutdown periods. Specifically, for those processes that have production-based limits (i.e., thermal chip dyers, scrap dryer/delacquering kiln/decoating kilns, dross-only furnaces, in-line fluxers using reactive flux, and group 1 furnaces), we solicit comment as to whether work practices under section 112(h) of the CAA should be applied during startup and shutdown. If you believe work practices would be appropriate for such processes, please explain how the requirements of section 112(h)(2) are met and identify any work practices that would be effective in limiting HAP emissions during periods of startup and shutdown for such processes.

For these processes (thermal chip dryers, scrap dryers/delacquering kilns/decoating kilns, dross-only furnaces, group 1 furnaces, in-line fluxers, dross only furnaces, sweat furnaces, and group 2 furnaces), startup begins with ignition and equipment warming from a cold start or a complete shutdown, using natural gas or other clean fuel. At the point that feed is introduced, startup ends and the process is in normal operation. Similarly for shutdown periods, when an operator halts the introduction of feed or charge to, and has removed all product (e.g., tapped a furnace), the shutdown phase has begun. For more information about the application of subpart RRR standards to periods of Startup and shutdown, including revised methods to demonstrate compliance, see the *Technical Support Document for the Secondary Aluminum Production* Source Category that is available in the docket for this proposed rulemaking.

Periods of startup, normal operations, and shutdown are all predictable and routine aspects of a source's operation. However, by contrast, malfunction is defined as a ''sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment or a process to operate in a normal or usual manner * * *'' (40 CFR 63.2). The EPA has determined that CAA section 112 does not require that emissions that occur during periods of malfunction be factored into development of CAA section 112 standards. Under 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 or best controlled sources when setting emission standards. Moreover, while the EPA accounts for variability in setting emission standards consistent with the section 112 case law, nothing in that case law requires the agency to consider malfunctions as part of that analysis. Section 112 of the CAA uses the concept of ''best controlled'' and ''best performing'' unit in defining the level of stringency that CAA section 112 performance standards must meet. Applying the concept of ''best controlled'' or ''best performing'' to a unit that is malfunctioning presents significant difficulties, as malfunctions are sudden and unexpected events.

Further, accounting for malfunctions 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, the goal of a best controlled or best performing source is to operate in such a way as to avoid malfunctions of the source, and accounting for malfunctions could lead to standards that are significantly less stringent than levels that are achieved by a well-performing non-malfunctioning source. 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 was not instead ''caused in part by poor maintenance or careless operation'' 40 CFR 63.2 (definition of malfunction).

Finally, the EPA recognizes that even equipment that is properly designed and maintained can sometimes fail and that such failure can sometimes cause a violation of the relevant emission standard. (See, e.g., State Implementation Plans: Policy Regarding Excessive Emissions During Malfunctions, Startup, and Shutdown (Sept. 20, 1999); Policy on Excess Emissions During Startup, Shutdown, Maintenance, and Malfunctions (Feb. 15, 1983)). The EPA is therefore proposing to add to the final rule an affirmative defense to civil penalties for violations of emission limits that are caused by malfunctions. See 40 CFR 63.1503 (defining ''affirmative defense'' to mean, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding). We also are proposing other regulatory provisions to specify the elements that are necessary to establish this affirmative defense; the source must prove by a preponderance of the evidence that it has met all of the elements set forth in 40 CFR 63.1520 (See 40 CFR 22.24). The criteria ensure that the affirmative defense is available only where the event that causes a violation of the emission limit meets the narrow definition of malfunction in 40 CFR 63.2 (sudden, infrequent, not reasonably preventable and not caused by poor maintenance and or careless operation). For example, to successfully assert the affirmative defense, the source must prove by a preponderance of the evidence that excess emissions ''[w]ere

caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner * * *.'' The criteria also are designed to ensure that steps are taken to correct the malfunction, to minimize emissions in accordance with 40 CFR 63.1506(a)(5) and § 1520(a)(8) and to prevent future malfunctions. For example, the source must prove by a preponderance of the evidence that ''[r]epairs were made as expeditiously as possible when the applicable emission limitations were being exceeded * * *'' and that ''[a]ll possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment and human health * * *.'' In any judicial or administrative proceeding, the Administrator may challenge the assertion of the affirmative defense and, if the respondent has not met its burden of proving all of the requirements in the affirmative defense, appropriate penalties may be assessed in accordance with Section 113 of the Clean Air Act (see also 40 CFR 22.27).

The EPA included an affirmative defense in the proposed rule in an attempt to balance a tension, inherent in many types of air regulation, to ensure adequate compliance while simultaneously recognizing that despite the most diligent of efforts, emission limits may be exceeded under circumstances beyond the control of the source. The EPA must establish emission standards that ''limit the quantity, rate, or concentration of emissions of air pollutants on a continuous basis.'' 42 U.S.C. § 7602(k) (defining ''emission limitation and emission standard''). See generally *Sierra Club* v. *EPA,* 551 F.3d 1019, 1021 (D.C. Cir. 2008). Thus, the EPA is required to ensure that section 112 emissions limitations are continuous. The affirmative defense for malfunction events meets this requirement by ensuring that even where there is a malfunction, the emission limitation is still enforceable through injunctive relief. While ''continuous'' limitations, on the one hand, are required, there is also case law indicating that in many situations it is appropriate for the EPA to account for the practical realities of technology. For example, in *Essex Chemical* v. *Ruckelshaus,* 486 F.2d 427, 433 (D.C. Cir. 1973), the D.C. Circuit acknowledged that in setting standards under CAA Section 111 ''variant provisions'' such as provisions allowing for upsets during startup, shutdown and equipment malfunction ''appear necessary to preserve the reasonableness of the standards as a whole and that the record does not support the 'never to be exceeded' standard currently in force.'' See also, *Portland Cement Association* v. *Ruckelshaus,* 486 F.2d 375 (D.C. Cir. 1973). Though intervening case law such as *Sierra Club* v. *EPA* and the CAA 1977 amendments undermine the relevance of these cases today, they support the EPA's view that a system that incorporates some level of flexibility is reasonable. The affirmative defense simply provides for a defense to civil penalties for excess emissions that are proven to be beyond the control of the source. By incorporating an affirmative defense, the EPA has formalized its approach to upset events. In a Clean Water Act setting, the Ninth Circuit required this type of formalized approach when regulating ''upsets beyond the control of the permit holder.'' *Marathon Oil Co.* v. *EPA,* 564 F.2d 1253, 1272–73 (9th Cir. 1977). But see, *Weyerhaeuser Co.* v. *Costle,* 590 F.2d 1011, 1057–58 (D.C. Cir. 1978) (holding that an informal approach is adequate). The affirmative defense provisions give the EPA the flexibility to both ensure that its emission limitations are ''continuous'' as required by 42 U.S.C. § 7602(k), and account for unplanned upsets and thus support the reasonableness of the standard as a whole.

Specifically, we are proposing the following rule changes:

- Add general duty requirements in 40 CFR 63.1506(a)(5) and § 63.1520(a)(8) to replace General Provision requirements that reference vacated SSM provisions.
- Revise language in 40 CFR 63.1515 that references notifications for SSM events.
- Add paragraphs in 40 CFR 63.1520 concerning the reporting of malfunctions as part of the affirmative defense provisions.
- Add paragraph in 40 CFR 63.1516(d) regarding reporting of malfunctions and revised § 63.1516(b)(1)(v) to remove reference to malfunction.
- Revise paragraph in 40 CFR 63.1510(s)(iv) to remove reference to malfunction.
- Add paragraphs in 40 CFR 63.1517 concerning the keeping of certain records relating to malfunctions as part of the affirmative defense provisions.
- Revise Appendix A to subpart RRR of part 63 to reflect changes in the applicability of the General Provisions to this subpart resulting from a court vacatur of certain SSM requirements in the General Provisions.

2. Electronic Reporting

The EPA must have performance test data to conduct effective reviews of CAA sections 112 and 129 standards, as well as for many other purposes including compliance determinations, emissions factor development and annual emissions rate determinations. In conducting these required reviews, the EPA has found it ineffective and time consuming, not only for us, but also for regulatory agencies and source owners and operators, to locate, collect, and submit performance test data because of varied locations for data storage and varied data storage methods. In recent years, though, stack testing firms have typically collected performance test data in electronic format, making it possible to move to an electronic data submittal system that would increase the ease and efficiency of data submittal and improve data accessibility.

Through this proposal the EPA is presenting a step to increase the ease and efficiency of data submittal and improve data accessibility. Specifically, the EPA is proposing that owners and operators of Secondary Aluminum Production facilities submit electronic copies of required performance test reports to the EPA's WebFIRE database. The WebFIRE database was constructed to store performance test data for use in developing emissions factors. A description of the WebFIRE database is available at *http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main.*

As proposed above, data entry would be through an electronic emissions test report structure called the Electronic Reporting Tool. The ERT would generate an electronic report which would be submitted using the Compliance and Emissions Data Reporting Interface (CEDRI). The submitted report would be transmitted through EPA's Central Data Exchange (CDX) network for storage in the WebFIRE database making submittal of data very straightforward and easy. A description 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 (*www.epa.gov/cdx*). The proposal to submit performance test data electronically to the EPA would apply only to those performance tests conducted using test methods that will be supported by the ERT. The ERT contains a specific electronic data entry form for most of the commonly used EPA reference methods. A listing of the pollutants and test methods supported by the ERT is available at *http://www.epa.gov/ttn/chief/ert/index.html.*

We believe that industry would benefit from this proposed approach to electronic data submittal. Having these data, the EPA would be able to develop improved emissions factors, make fewer information requests and promulgate better regulations.

One major advantage of the proposed submittal of performance test data through the ERT is a standardized method to compile and store much of the documentation required to be reported by this rule. Another advantage is that the ERT clearly states what testing information would be required. Another important proposed benefit of submitting these data to the EPA at the time the source test is conducted is that it should substantially reduce the effort involved in data collection activities in the future. When the EPA has performance test data in hand, there will likely be fewer or less substantial data collection requests in conjunction with prospective required residual risk assessments or technology reviews. This would result in a reduced burden on both affected facilities (in terms of reduced manpower to respond to data collection requests) and the EPA (in terms of preparing and distributing data collection requests and assessing the results).

State, local and tribal agencies could also benefit from more streamlined and accurate review of electronic data submitted to them. The ERT would allow for an electronic review process rather than a manual data assessment making review and evaluation of the source provided data and calculations easier and more efficient. Finally, another benefit of the proposed data submittal to WebFIRE electronically is that these data would greatly improve the overall quality of existing and new emissions factors by supplementing the pool of emissions test data for establishing emissions factors and by ensuring that the factors are more representative of current industry operational procedures. A common complaint heard from industry and regulators is that emissions factors are outdated or not representative of a particular source category. With timely receipt and incorporation of data from most performance tests, the EPA would be able to ensure that emissions factors, when updated, represent the most current range of operational practices. 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 would save industry, state, local, tribal agencies and the EPA significant time, money and effort while also improving the quality of emissions inventories and, as a result, air quality regulations.

3. ACGIH Guidelines

Capture and Collection Requirements

Subpart RRR specifies the ACGIH Industrial Ventilation Manual as the standard for acceptable capture and collection of emissions from a source with an add-on air pollution control device. See § 63.1506(c)(1) and Table 3 to subpart RRR. The rule currently incorporates by reference ''Chapters 3 and 5 of Industrial Ventilation: A Manual of Recommended Practice'', American Conference of Government Industrial Hygienists (ACGIH), 23rd edition, 1998. Two issues have been raised with respect to the ACGIH Guidelines since inception of the rule.

First the referenced version of the manual is no longer in print. Therefore we are proposing that the 23rd edition or the most recent 27th edition to the manual may be used. Further we are proposing to remove the specific chapter reference due to difference in the manual versions.

Second, the current rule requires that emissions capture and collection systems be designed consistent with the ACGIH industrial ventilation guidelines and that the methodologies of demonstrating compliance with capture and collection are consistent with ACGIH requirements. We are proposing that affected sources that are equipped with air pollution control devices must follow the ACGIH Guidelines, 23rd or 27th editions. Industry representatives point out that the manual contains ''recommended'' ventilation practices and assert that subpart RRR inappropriately requires compliance with the guidelines. For example, the guidance establishes design criteria for determining minimum hood dimensions and flow; however, industry representatives allege that the relevant equation is not appropriate for determining minimum flow requirements for ''oversized'' hoods that are used in the secondary aluminum production industry. The equations for sizing hoods in Chapter 3 of the 23rd edition were said to over-predict the required flow rates. According to industry representatives, the ACGIH manual should be used only as a guideline for judging the effectiveness of the hoods and that engineering evaluations of hoods can be performed similarly to those for other engineered processes. Also, there may be rules and ventilation guidelines developed by other professional organizations, governmental agencies or industry organizations that are appropriate and could be used.

Therefore, we are considering allowing other recognized design criteria and methodologies for the capture and collection of emissions in the demonstration of compliance, which will provide more flexibility to the industry. We are inviting comments on alternatives to the ACGIH guidelines or other suggestions for revising the rule to increase flexibility for the industry while ensuring that capture and collection systems are adequately designed and operated to insure that emissions are captured and fugitive emissions minimized. In particular, we would be interested in obtaining information on minimum face velocity, elimination of visible emissions, minimum pressure drop or other suitable parameter(s) to determine capture effectiveness.

4. Scrap Inspection Program for Group 1 Furnace Without Add-on Air Pollution Control Device

Under the current subpart RRR NESHAP, the owner or operator of a group 1 furnace that is not equipped with an add-on air pollution control device must prepare a written monitoring plan describing the measures that will be taken to ensure continuous compliance with all applicable emissions limits. One such measure is the inspection of scrap to determine the levels of contaminants in the scrap that will be charged to the furnace. Section 63.1510(p) lists the requirements for a scrap inspection program although this scrap inspection program is not mandatory. Because the Agency considers a well designed and implemented scrap inspection program important to ensuring that emissions are maintained at levels below the applicable emissions limits, we are interested in how we could improve the current scrap inspection provisions as well as how we would make the scrap inspection program more usable. Therefore, we are soliciting comments and information on what such a program should include. We are particularly interested in receiving comments and information from companies, organizations or individuals that may have experience with scrap inspection programs and may have been involved in developing and implementing such programs.

5. Multiple Tests for Worst Case Scenarios

The existing rule currently allows testing to demonstrate compliance under a range of operating scenarios. Facilities that process a range of

materials (such as dross, used beverage containers (UBC), etc.) may have different scenarios (production levels, range of charge materials, and reactive fluxing rates) that result in a range of emissions for the different regulated pollutants. For example, the scenario resulting in the highest emissions of HCl may be while processing dross; the scenario resulting in the highest emissions of D/F formation may be while processing UBC; and the scenario resulting in the highest emissions of PM is most likely UBC as well. The EPA is aware of concerns that under the original rule and subsequent amendments, there may be some uncertainty about different testing conditions that may be required for different HAP. We are proposing amendments to § 63.1511 to clarify that performance tests under multiple scenarios may be required in order to reflect the emissions ranges for each regulated pollutant.

6. Lime Injection Rate Verification

The rule currently requires owners/operators to verify that continuous lime injection system maintains free-flowing lime in the hopper at all times and maintain the lime feeder setting at the same level established during the performance test. However the rule does not specifically require that the feeder setting be verified with a pound per hour (lb/hr) injection rate as established in the performance test. Due to continuous usage of the equipment, the feeder setting and injection rate may not correlate as they did during the performance test. Periodic verification of the actual injection rate in pounds per hour would ensure that the necessary amount of lime is reaching the baghouse and it would give a better indication of continuous compliance. We are proposing to revise § 63.1510 by adding a requirement for the verification of the lime injection rate in pounds per hour at least once per month. We are also proposing changes to clarify that for the purposes of monitoring the rate of lime injection, the lime injection feeder setting must be set no lower than that determined in the performance test; however, it may be set above that level.

7. Flux Monitoring

Flux monitoring provisions in § 63.1510(j)(3)(ii) require the owner/operator to record, for each 15-minute block period during each operating cycle or time period used in the performance test during which reactive fluxing occurs, the time, weight and type of flux for each addition of solid reactive flux. Solid flux, however, may be added intermittently during the operating cycle dependent upon the needs of the furnace. We are proposing amendments to revise these monitoring requirements to clarify that solid flux should be tracked at each addition during the cycle or time period used in the performance test.

8. Cover Fluxes

Cover flux is defined in § 63.1503 as ''salt added to the surface of molten aluminum in a group 1 or group 2 furnace, without agitation of the molten aluminum for the purpose of preventing oxidation''. We have received information from industry and state agencies indicating that most furnaces are agitated. Rotary furnaces are constantly rotated until the metal is tapped and reverberatory furnaces have a molten metal pump circulating aluminum from the hearth to the charge well providing agitation to melt the scrap. In order to avoid major source status, a few secondary aluminum facilities have claimed that they were using cover fluxes when they were actually using reactive fluxes which may lead to higher emissions. Other sources claiming to use a cover flux were using them in furnaces in which the melt was being agitated and, therefore, did not meet the definition of cover flux. To address this, we are proposing to clarify the definition of cover flux by adding to the definition the following: Any flux added to a rotary furnace or other furnace that uses a molten metal pump or other device to circulate the aluminum is not a cover flux. Any reactive flux cannot be a cover flux.

9. Capture and Collection System

Affected sources under the current rule that are controlled by an air pollution control device must use a capture and collection system meeting the guidelines of the ACGIH in order to minimize fugitive emissions and ensure that emissions are routed to the control device where the pollutants are removed from the exhaust gas stream. As part of efforts to clarify hooding and capture requirements we are proposing a definition for capture and collection systems, as follows: Capture and collection system means the system of hood(s), duct system and fan 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.

10. Bale Breakers and Scrap Shredders

The current regulation exempts bale breakers from the requirements for aluminum scrap shredders and the definition of shredders is intentionally broad. To clarify that a bale breaker is not a scrap shredder, we are proposing a definition for bale breaker. We are also proposing to clarify in the definition of aluminum scrap shredder that both high speed and low speed shredding devices are considered scrap shredders.

11. Bag Leak Detection Systems (BLDS)

The current requirements for BLDS in the rule cite a 1997 guidance document on bag leak detection systems that operate on the triboelectric effect (when materials become electrically charged through contact and separation from another material). BLDS currently in use operate digitally and are not addressed by the 1997 guidance. We are proposing to update § 63.1510(f) to remove the reference to the 1997 guidance document and require that the manufacturer's maintenance and operating instructions be followed at all times.

12. Sidewell Furnaces

The monitoring requirements for sidewell group 1 furnaces with uncontrolled hearths specify recording the level of molten metal (above or below the arch between the sidewell and hearth) for each charge to the furnace. Because there are emission units that add charge continuously and emission units that add charge intermittently, the requirements to record levels during each charge can be problematic for some sources. Also, the only option for verifying the molten level is visual observation which may be difficult in some cases. To address these issues, we are proposing revisions to § 63.1510(n) to require the monitoring to be done after each tap, rather than each charge. We are also proposing that where visual inspection of the molten metal level is not possible, physical measurement to determine the molten metal level in sidewell group 1 furnaces will be required. We are also proposing to add a definition of tap to mean the end of an operating cycle when processed molten aluminum is poured from a furnace.

13. Testing Representative Units

Section 63.1511 allows testing of a representative uncontrolled Group 1 furnace or in-line fluxer to determine the emission rate of other similar units. Some secondary aluminum facilities have conducted one test run on each of multiple emission units to comprise one test, rather than performing all test runs on the same unit. This is not the intent of the rule. We are proposing to amend § 63.1511(f) to clarify that the three test

runs must be conducted on the same unit.

14. Initial Performance Tests

Section 63.1511(b) of the current rule requires a new source (i.e., a source that commences construction after 1999) to conduct its initial performance tests for a new or modified source within 90 days of start-up to show compliance with emission limits and to establish its operating parameters. Other MACT standards provide sources 180 days in which to conduct their initial performance test. The General Provisions in § 63.7 set this time limit at 180 days. Because a period of 180 days to conduct testing would help the secondary aluminum industry avoid the cost of unnecessary repeat testing and it is consistent with the General Provisions, we are proposing to revise § 63.1511 to allow 180 days to conduct an initial performance test.

15. Definitions of Scrap Dryer/Delacquering Kiln/Decoating Kiln and Aluminum Scrap Shredder

We are proposing revisions to the definition of scrap dryer/delacquering kiln/decoating kiln to clarify that thermal delaminating of aluminum scrap and mechanical granulation of the recovered metal are affected sources under Subpart RRR. Heat is used to separate foil from paper and plastic in scrap. These sources operate chambers with a maximum temperature of 900 degrees Fahrenheit and with no melting of the recovered aluminum. Under the proposed definition, subsequent melting of recovered aluminum need not occur at the same facility that conducts the recovery operation. We are also proposing to amend the definition of a scrap shredder to include granulation and shearing in addition to crushing, grinding, and breaking of aluminum scrap into a more uniform size prior to processing or charging to a scrap dryer/delacquering kiln/decoating kiln or furnace.

16. Transporting Metal

We are addressing questions as to the applicability of the rule to pots that are used to transport metal to customers. The rule does not currently regulate these pots and we are proposing to amend the definition of Group 2 furnace to clarify the fact that the rule does not regulate these pots.

17. Specifications for Cleaning Processes

We considered whether to add specifications for cleaning processes such as those required for runaround scrap to ensure that scrap processed by certain methods qualifies as clean scrap. Specifications considered include minimum residence time and temperature for thermal drying process and minimum speed and residence time for centrifuging processes. We are not proposing these revisions in today's action. However, we invite comments on this issue and solicit information on appropriate specifications that could be applied to these processes to ensure that the cleaning process produces clean charge.

18. HF Emissions Compliance Provisions

The current subpart RRR standards applicable to major sources contain limits for HCl emissions from group 1 furnaces and require operators to conduct performance tests for HCl emissions. The EPA stated in the subpart RRR NESHAP that HCl would serve as a surrogate for all acid gases, including HF. Where chlorine-containing fluxes were used along with fluorine-containing fluxes, lime-injected fabric filters would effectively control HCl and HF so that determining compliance with the HCl limit was considered sufficient, and a separate compliance measure for HF was not required.

In this rulemaking, we are proposing to modify the compliance provisions in subpart RRR to ensure that HF emissions from group 1 furnaces without add-on control devices are addressed consistent with the intent of the promulgated standards. Specifically, a secondary aluminum facility with an uncontrolled Group 1 furnace may use fluorine-containing fluxes without using chlorine-containing fluxes, and would not be required under the current rule to test the furnace for HF, so any HF emissions would be neither controlled nor accounted for in any HCl testing.

We are proposing to require owners and operators of uncontrolled group 1 furnaces to test for both HF and HCl. We are proposing that the limits for HF from these furnaces would be 0.4 lb/ton of feed, equivalent to the existing subpart RRR limits for HCl from Group 1 furnaces. Our reasoning is that secondary aluminum facilities use chlorine-containing and fluorine-containing fluxes to perform the same function of enabling the removal of impurities (such as magnesium) from aluminum. They are also chemically similar, in that both are halogens. Therefore, if an uncontrolled Group 1 furnace has a given mass of impurities to be removed from the aluminum, the owner/operator may either use a chlorine-containing or fluorine-containing flux, and based on the information currently available to EPA, we propose that uncontrolled Group 1 furnaces be subject to testing for HF and an associated HF emission limit that is the same as the currently applicable HCl emission limit. We are proposing that EPA Method 26A be used, which is capable of measuring HCl and HF. The testing requirement for HF would coincide with HCl testing at the next scheduled performance test after the effective date of the final rule. As an alternative to testing for HF, we are proposing that the owner or operator may choose to determine the rate of reactive flux addition for an affected source, and may assume that, for the purposes of demonstrating compliance with the SAPU emission limit, all fluorine in the reactive fluxes added to the source are emitted as HCl or HF. This alternative is already available for operators using chlorine-containing reactive fluxes.

Based on information received from industry, we estimate that approximately 199 group 1 furnaces at approximately 29 secondary aluminum production facilities are uncontrolled. These furnaces are already required to be tested to determine HCl emissions at least once every five years. Therefore, the only additional costs for these sources would be the laboratory analysis for HF. We estimate these costs to be approximately $1,000 per test. We expect that only furnaces that use fluorine-containing fluxes would potentially test for HF. Approximately 55 furnaces at eight facilities use fluorine-containing fluxes. Therefore, the total cost of this proposed rule revision is approximately $55,000 every 5 years, or approximately $11,000 per year. More information is available in the *Cost Estimates for 2012 Proposed Rule Changes to Secondary Aluminum NESHAP* which is available in the docket for this proposed rule.

19. Requirements for Uncontrolled Furnaces That Do Not Presently Comply With ACGIH Ventilation Guidelines

Section 63.1506(c)(1) requires that, for each affected source or emission unit equipped with an add-on air pollution control device, the owner or operator must design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates as published by the ACGIH in chapters 3 and 5 of ''Industrial Ventilation: A Manual of Recommended Practice.'' However, there are no similar requirements for furnaces that are not equipped with an add-on air pollution control device. Furnaces that are uncontrolled for fugitive emissions do not account for

fugitive emissions that escape during testing for example through open doors and therefore underestimate emissions during performance testing.

Accordingly, we are proposing that owner/operators with uncontrolled affected sources either: (1) Construct hooding for testing that meets the ACGIH guidelines, and include emissions captured by that hooding in the compliance determination, or (2) assume a capture efficiency of 66.67 percent (i.e., multiply stack test results by a factor of 1.5) to account for emissions not captured. The basis for this proposed requirement is further discussed in the *Draft Technical Support Document for the Secondary Aluminum Production Source Category* included in the docket for this rule. If the source fails to demonstrate compliance using the 66.67 percent capture efficiency approach, we are proposing that the owner/operator retest with hoods meeting the ACGIH guidelines within 180 days. These proposed requirements would be implemented at the next scheduled performance test after the effective date of the final rule. We recognize that there may be situations (e.g., various furnace configurations) where constructing hooding may be problematic. Therefore, we are seeking comments and information on these proposed requirements and regarding other possible approaches that could be applied, such as emissions monitoring to address these unmeasured fugitive emissions. We also seek comments and information on work practices that could be applied during compliance testing that would minimize the escape of these fugitive emissions, including approaches that could be adapted for different furnace configurations, and to ensure that the vast majority of emissions from these units are accounted for during compliance testing.

We estimate that there are 107 uncontrolled furnaces that would be required to either install hooding that meets ACGIH guidelines for testing or to assume the 66.67 percent capture efficiency. We estimate that the capital cost of constructing the appropriate hooding would be $57,000 per affected furnace, resulting in a total capital cost of up to $6,099,000 for the source category (conservatively assuming that all these furnaces choose the hooding option), and an annualized cost of up to $1,220,000 (again based on the conservative assumption that all facilities choose the option of constructing hooding).

20. Clarify the Possible Number of New SAPUs

The rule currently states that there can be only one existing SAPU at an aluminum plant but is not clear on whether there can be more than one new SAPU. We are proposing revisions to clarify that more than one new SAPU is allowed under the rule.

21. Aluminum Scrap Containing Anodizing Dyes or Sealants

The current definition of ''clean charge'' does not clearly indicate the status of anodized aluminum. Some anodized aluminum parts contain dyes and/or sealants that contain organic materials. Therefore, we propose to amend the definition of ''clean charge'' to indicate that clean charge does not include anodized material that contains dyes or sealants that contain organic material.

22. Afterburner Residence Time

Currently, the standard contains the following definition: ''*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.''

At some secondary aluminum facilities, the ductwork has been included as part of the combustion chamber to increase the calculated residence time and meet the requirements to qualify for alternative limits in § 63.1505(e). While this interpretation may not be consistent with the current definition, it can be shown that in some afterburners, the temperature in the duct work is adequate for D/F destruction, which would justify the inclusion of the duct work in the calculation of residence time.

We found that the basis for the residence time requirements for sweat furnaces and delacquering kilns in § 63.1505 did include the refractory lined duct up to the thermocouple measurement location. Therefore, we are proposing to amend the definition of residence time as follows, ''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.''

23. SAPU Feed/Charge Rate

There has been confusion over the interpretation of certain SAPU requirements such that a SAPU emission limit should be calculated based on feed/charge rates during performance test. Our interpretation has always been that allowable emissions are calculated on a daily basis using feed/charge throughput, which can change daily. Because of the confusion over the appropriate method, we are proposing clarifications that will make it clear that the daily throughput, and not the throughput at the time of the performance test, is used in the calculation of allowable emissions in each emissions unit (group 1 furnace or in-line fluxer) within the SAPU. Consistent with the existing rule, area sources of HAP would not be required to calculate, or comply with a SAPU emission limit for PM or HCl. The owner or operator would be required to demonstrate compliance with these limits and these calculated SAPU emission limits would be used to establish compliance in accordance with the procedures in § 63.1513.

24. Changing Furnace Classification

The current subpart RRR regulatory text does not explicitly address whether and under what conditions a secondary aluminum production furnace may change its classification between group 1 furnace with add-on air pollution control device (APCD) (i.e., group 1 controlled furnace), group 1 furnace without add-on APCD (i.e., group 1 uncontrolled furnace), and group 2 furnace. This has led to uncertainty for facilities when considering available compliance options. The EPA proposes a new § 63.1514 that would allow an owner/operator to change a furnace's classification (also called an operating mode), as long as the change and new operating mode are fully compliant with all substantive and procedural requirements of the subpart RRR. The proposed procedures include limits on the frequency with which furnace operating modes can be changed. Practical implementation and enforcement of requirements such as SAPU compliance, Operation, Maintenance and Monitoring (OM&M) plans, and labeling require that furnace operating modes are not in a state of constant change. Therefore, we are proposing that a change in furnace operating mode and reversion to the

previous operating mode occurs no more frequently than once every 6 months, with an exception for control device maintenance requiring shutdown. Furnaces equipped with APCDs that meet the requirements for changing furnace classifications would be permitted to change operating mode and revert to the previous operating mode without restriction on frequency in cases where an APCD was shut down for planned maintenance activities such as bag replacement.

These proposed revisions specify the emissions testing that would be required to change furnace operating modes; operating requirements, such as labeling, flux use, scrap charging for the furnace before, during, and after changing; and recordkeeping requirements. These proposed revisions will provide industry with the flexibility to efficiently operate furnaces in response to changes in the availability of feed materials and other operational conditions. While providing increased flexibility, it is also important that EPA maintain its compliance oversight of these affected sources to ensure furnace operations are compliant with the rule. Therefore, EPA is proposing certain limitations on how and when furnaces can change from one operating mode to another. For example, when a furnace is changed from a group 1 furnace to a group 2 furnace, we are proposing that performance testing be conducted when the furnace is changed to the group 2 mode to verify that the furnace is not emitting HAP at levels above the relevant limits as a result of any HAP-containing feed or flux left in the furnace. We are also proposing requirements for this scenario to confirm that HAP emissions are sufficiently low to ensure that the furnace, while operating as a group 2 furnace, is performing as a group 2 furnace, that is, with little or no HAP emissions. To ensure that furnaces have had sufficient throughput (or time) in their new operating mode such that performance tests are representative of their new operating mode, the proposed amendments would require waiting periods of one or more charge-to-tap cycles or 24 operating hours before conducting performance testing. For alternate operating modes we are proposing that the testing be required in order to demonstrate that the furnace remains compliant with all applicable emission limits. Major sources would be required to repeat the required tests at least once every 5 years. When following the substantive and procedural requirements of this rule, some owners/operators may be able to turn off associated air pollution control devices. Because of this increased flexibility, we estimate an annual savings of $1,100,000, based on an estimate of controls for 50 furnaces being turned off for 6 months per year. We estimate additional testing costs of $500,000 per year. Therefore, we estimate the net cost to be negative $600,000 per year (a savings of $600,000 per year). We solicit comment on our estimates of avoided costs and testing costs.

25. Dross Only Versus Dross/Scrap Furnaces

Dross only furnaces at area sources are not subject to subpart RRR D/F emission limitations and therefore are not subject to the MACT operating parameter limitations. Industry representatives have inquired about the requirements for a furnace processing scrap on some occasions and then dross at other times.

We note that dross only furnaces are defined as furnaces that only process dross. A furnace that processes scrap may be a group 1 furnace or a group 2 furnace. Operators of group 1 furnaces have the option of conducting performance tests under different operating conditions to establish operating parameters applicable to different combinations of types of charge and fluxing rates. We have added language to clarify this in the proposed amendments. We note that dross is not clean charge, as defined in the rule, and thus any group 1 furnace processing dross is subject to limitations on emissions of D/F, and other requirements for group 1 furnaces processing other than clean charge.

26. Annual Hood Inspections

Industry representatives have stated that our interpretation that annual hood inspections include an annual hood flow measurement represents an unnecessary cost burden for each regulated facility. Industry representatives recommended that flow testing should only be required after modifications to the hood, furnace, and/or controls that could negatively impact the capture and, only then if they cannot be demonstrated by alternate engineering calculations or operating parameters. They contend that due to stringent OM&M protocols, it should be sufficient to certify that there have been no changes, with possible verification of flow by visual inspections of hoods and ductwork for leaks and possible verification of fan amperage. We disagree that these measures alone are sufficient to verify that flow is sufficient and that annual hood flow measurement represents an unnecessary cost burden. We are proposing to codify in the rule our existing interpretation that annual hood inspections include flow rate measurements. These flow rate measurements supplement the effectiveness of the required visual inspection for leaks (which may be difficult or uncertain for certain sections of ductwork), to reveal the presence of obstructions in the ductwork, confirm that fan efficiency has not declined, and provide a measured value for air flow.

27. Applicability of Rule to Area Sources

While the emissions standards that apply to area sources are evident in the current rule, the applicable operating, monitoring, and recordkeeping and reporting requirements are less clear. In general, the intent of the rule is to subject area sources to standards for D/F with corresponding monitoring, testing, reporting, and recordkeeping. We are proposing amendments that would clarify which of the operating, monitoring and other requirements apply to area sources.

28. Altering Parameters During Testing With New Sources of Scrap

Currently, the rule requires that when a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during a performance test, the owner or operator must initiate corrective action. However, when the owner or operator is conducting performance testing with a new type of scrap, it may be necessary to deviate from the previously established values. The rule was not intended to prevent owners/operators from establishing new or revised operating parameters, if necessary to process different types of scrap. Accordingly, we are modifying the rule to allow deviations from the values and ranges in the OM&M plan during performance testing only, provided that the site-specific test plan documents the intent to establish new or revised parametric limits.

29. Controlled Furnaces That Are Temporarily Idled

Currently, the rule does not specify if an owner or operator may discontinue the operation of its control device if a furnace is not in use, but is not completely empty or shut down. Industry has requested that the EPA provide allowances for control devices to be turned off while the furnaces are not in operation or being charged with aluminum scrap or fluxing agents. This typically occurs over the weekend and accounts for unnecessary electrical and

operating costs. Accordingly, we are modifying the rule to allow for the discontinued use of control devices for these furnaces that will remain idle for 24 hours or longer.

30. Annual Compliance Certification for Area Sources

Because area sources that are subject to subpart RRR are exempt from the obligation to obtain a permit under 40 CFR part 70 or 71, it was not clear how area sources certified their annual compliance. To clarify that area sources are required to certify their annual compliance, we are proposing clarifying language to § 63.1516(c).

E. Compliance Dates

We are proposing that existing facilities must comply with all changes proposed in this action 90 days after promulgation of the final rule. All new or reconstructed facilities must comply with all requirements in the final rule upon startup.

V. Summary of Cost, Environmental, and Economic Impacts

A. What are the affected sources?

We estimate that there are 161 secondary aluminum production facilities that will be affected by this proposed rule, of which 53 are major sources of HAPs, and 108 are area sources. We estimate that 10 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?

No reductions are being proposed to numerical emissions limits. The proposed amendments include requirements that affected sources comply with the numerical emissions limits at all times including periods of startup and shutdown to help ensure that emissions from those affected sources are minimized. The proposed amendments would help to clarify the existing provisions and would help to improve compliance. The proposed amendment to limit and require testing of HF emissions for uncontrolled group 1 furnaces is not expected to significantly reduce HF emissions but will help to ensure that HF emissions remain low. We believe that the proposed revisions would result in little or no emissions reductions. Therefore, no air quality impacts are expected.

C. What are the cost impacts?

We estimate the total cost of the proposed amendments to be up to approximately $611,000 per year. We estimate that 56 unique facilities are affected and that the cost per facility ranges from negative $36,000 per year for a facility changing furnace operating modes to $112,000 per year for a facility installing hooding for testing. Our estimate includes an annualized cost of up to $1,200,000 for installing uncontrolled furnace testing hooding that meets ACGIH requirements, assuming that 107 furnaces choose that option (rather than assuming a 67 percent capture efficiency for their existing furnace exhaust system). Our estimate also includes 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 is based on 50 furnaces turning off their controls for approximately 6 months every year. This savings is net of the cost of testing to demonstrate that these furnaces remain in compliance with emission limits after their control devices have been turned off. The estimated costs are explained further in the Cost Estimates for 2012 Proposed Rule Changes to Secondary Aluminum NESHAP, which is available in the docket.

D. What are the economic impacts?

We performed an economic impact analysis for the proposed modifications in this rulemaking. That analysis estimates total annualized costs of approximately $0.6 million at 28 facilities and cost to sales ratios of less than 0.02 percent for the Secondary Aluminum Production source category. For more information, please refer to the Economic Impact Analysis for the Proposed Secondary Aluminum NESHAP that is available in the public docket for this proposed rulemaking.

E. What are the benefits?

We do not anticipate any significant reductions in HAP emissions as a result from these proposed amendments. However, we think that the proposed amendments would help to improve the clarity of the rule, which can help to improve compliance and help to ensure that emissions are kept to a minimum. Certain provisions may also provide operational flexibility to the industry at no increase in HAP emissions.

VI. Request for Comments

We are soliciting comments on all aspects of this proposed action. In addition to general comments on this proposed action, we are also interested in any additional data that may help to reduce the uncertainties inherent in the risk assessments and other analyses. We are specifically interested in receiving corrections to the site-specific emissions profiles used for risk modeling. Such data should include supporting documentation in sufficient detail to allow characterization of the quality and representativeness of the data or information. Section VII of this preamble provides more information on submitting data.

VII. Submitting Data Corrections

The site-specific emissions profiles used in the source category risk and demographic analyses are available for download on the RTR web page at: *http://www.epa.gov/ttn/atw/rrisk/rtrpg.html*. The data files include detailed information for each HAP emissions release point for the facility included in the source category.

If you believe that the data are not representative or are inaccurate, please identify the data in question, provide your reason for concern, and provide any ''improved'' data that you have, if available. When you submit data, we request that you provide documentation of the basis for the revised values to support your suggested changes. To submit comments on the data downloaded from the RTR Web page, complete the following steps:

1. Within this downloaded file, enter suggested revisions to the data fields appropriate for that information. The data fields that may be revised include the following:

Data element	Definition
Control Measure	Are control measures in place? (yes or no).
Control Measure Comment	Select control measure from list provided, and briefly describe the control measure.
Delete	Indicate here if the facility or record should be deleted.

Data element	Definition
Delete Comment	Describes the reason for deletion.
Emissions Calculation Method Code For Revised Emissions	Code description of the method used to derive emissions. For example, CEM, material balance, stack test, etc.
Emissions Process Group	Enter the general type of emissions process associated with the specified emissions point.
Fugitive Angle	Enter release angle (clockwise from true North); orientation of the y-dimension relative to true North, measured positive for clockwise starting at 0 degrees (maximum 89 degrees).
Fugitive Length	Enter dimension of the source in the east-west (x-) direction, commonly referred to as length (ft).
Fugitive Width	Enter dimension of the source in the north-south (y-) direction, commonly referred to as width (ft).
Malfunction Emissions	Enter total annual emissions due to malfunctions (tpy).
Malfunction Emissions Max Hourly	Enter maximum hourly malfunction emissions here (lb/hr).
North American Datum	Enter datum for latitude/longitude coordinates (NAD27 or NAD83); if left blank, NAD83 is assumed.
Process Comment	Enter general comments about process sources of emissions.
REVISED Address	Enter revised physical street address for MACT facility here.
REVISED City	Enter revised city name here.
REVISED County Name	Enter revised county name here.
REVISED Emissions Release Point Type	Enter revised Emissions Release Point Type here.
REVISED End Date	Enter revised End Date here.
REVISED Exit Gas Flow Rate	Enter revised Exit Gas Flow Rate here (ft^3/sec).
REVISED Exit Gas Temperature	Enter revised Exit Gas Temperature here (F).
REVISED Exit Gas Velocity	Enter revised Exit Gas Velocity here (ft/sec).
REVISED Facility Category Code	Enter revised Facility Category Code here, which indicates whether facility is a major or area source.
REVISED Facility Name	Enter revised Facility Name here.
REVISED Facility Registry Identifier	Enter revised Facility Registry Identifier here, which is an ID assigned by the EPA Facility Registry System.
REVISED HAP Emissions Performance Level Code	Enter revised HAP Emissions Performance Level here.
REVISED Latitude	Enter revised Latitude here (decimal degrees).
REVISED Longitude	Enter revised Longitude here (decimal degrees).
REVISED MACT Code	Enter revised MACT Code here.
REVISED Pollutant Code	Enter revised Pollutant Code here.
REVISED Routine Emissions	Enter revised routine emissions value here (tpy).
REVISED SCC Code	Enter revised SCC Code here.
REVISED Stack Diameter	Enter revised Stack Diameter here (ft).
REVISED Stack Height	Enter revised Stack Height here (ft).
REVISED Start Date	Enter revised Start Date here.
REVISED State	Enter revised State here.
REVISED Tribal Code	Enter revised Tribal Code here.
REVISED Zip Code	Enter revised Zip Code here.
Shutdown Emissions	Enter total annual emissions due to shutdown events (tpy).
Shutdown Emissions Max Hourly	Enter maximum hourly shutdown emissions here (lb/hr).
Stack Comment	Enter general comments about emissions release points.
Startup Emissions	Enter total annual emissions due to startup events (tpy).
Startup Emissions Max Hourly	Enter maximum hourly startup emissions here (lb/hr).
Year Closed	Enter date facility stopped operations.

2. Fill in the commenter information fields for each suggested revision (i.e., commenter name, commenter organization, commenter email address, commenter phone number, and revision comments).

3. Gather documentation for any suggested emissions revisions (e.g., performance test reports, material balance calculations).

4. Send the entire downloaded file with suggested revisions in Microsoft® Access format and all accompanying documentation to Docket ID Number EPA–HQ–OAR–2010–0544 (through one of the methods described in the **ADDRESSES** section of this preamble). To expedite review of the revisions, it would also be helpful if you submitted a copy of your revisions to the EPA directly at RTR@epa.gov in addition to submitting them to the docket.

5. If you are providing comments on a facility, you need only submit one file for that facility, which should contain all suggested changes for all sources at that facility. We request that all data revision comments be submitted in the form of updated Microsoft® Access files, which are provided on the RTR Web Page at: *http://www.epa.gov/ttn/atw/rrisk/rtrpg.html*.

VIII. Statutory and Executive Order Reviews

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

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is a significant regulatory action because it raises novel legal and policy issues. Accordingly, the EPA submitted this action to the Office of Management and Budget (OMB) for review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011) and any changes made in response to OMB recommendations have been documented in the docket for this action.

B. Paperwork Reduction Act

The information collection requirements in this rule have been submitted for approval to the Office of Management and Budget (OMB) under the *Paperwork Reduction Act,* 44 U.S.C. 3501 *et seq.* The Information Collection Request (ICR) document prepared by the EPA has been assigned the EPA ICR number 2453.01. The information collection requirements are not enforceable until OMB approves them. The information requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to national 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 are proposing new paperwork requirements to the Secondary Aluminum Production source category in the form of reporting for furnace changes in classification and affirmative defense and recordkeeping with regard to verification of lime injection rates and change in furnace classifications. New monitoring requirements under the proposed revisions include testing for HF, and testing related to furnace classification changes.

For this proposed rule, the EPA is adding affirmative defense to the estimate of burden in the ICR. To provide the public with an estimate of the relative magnitude of the burden associated with an assertion of the affirmative defense position adopted by a source, the EPA has provided administrative adjustments to this ICR to show what the notification, recordkeeping and reporting requirements associated with the assertion of the affirmative defense might entail. The EPA's estimate for the required notification, reports and records for any individual incident, including the root cause analysis, totals $3,142 and is based on the time and effort required of a source to review relevant data, interview plant employees, and document the events surrounding a malfunction that has caused a violation of an emissions limit. The estimate also includes time to produce and retain the record and reports for submission to the EPA. The EPA provides this illustrative estimate of this burden because these costs are only incurred if there has been a violation and a source chooses to take advantage of the affirmative defense.

Given the variety of circumstances under which malfunctions could occur, as well as differences among sources' operation and maintenance practices, we cannot reliably predict the severity and frequency of malfunction-related excess emissions events for a particular source. It is important to note that the EPA has no basis currently for estimating the number of malfunctions that would qualify for an affirmative defense. Current historical records would be an inappropriate basis, as source owners or operators previously operated their facilities in recognition that they were exempt from the requirement to comply with emissions standards during malfunctions. Of the number of excess emissions events reported by source operators, only a small number would be expected to result from a malfunction (based on the definition above), and only a subset of excess emissions caused by malfunctions would result in the source choosing to assert the affirmative defense. Thus we believe the number of instances in which source operators might be expected to avail themselves of the affirmative defense will be extremely small.

With respect to the Secondary Aluminum Production source category, we estimate the annual recordkeeping and reporting burden after the effective date of the proposed rule for affirmative defense to be 30 hours at a cost of $3,142.

We expect to gather information on such events in the future and will revise this estimate as better information becomes available. 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 standards) for these amendments to subpart RRR is estimated to be $1,876,521 per year. This includes 1,725 labor hours per year at a total labor cost of $165,521 per year, and total non-labor capital and operation and maintenance (O&M) costs of $1,711,000 per year. The total burden for the Federal government (averaged over the first 3 years after the effective date of the standard) 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 these ICRs are approved by OMB, the agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control numbers for the approved information collection requirements contained in the final rules.

To comment on the agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, the EPA has established a public docket for this rule, which includes this ICR, under Docket ID number EPA–HQ–OAR–2010–0544. Submit any comments related to the ICR to the EPA and OMB. See the **ADDRESSES** section at the beginning of this notice for where to submit comments to the EPA. Send comments to OMB at the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, Attention: Desk Office for the EPA. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after February 14, 2012, a comment to OMB is best assured of having its full effect if OMB receives it by March 15, 2012. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of this proposed rule on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field. For this source category, which has the NAICS code 331314, the SBA small business size standard is 750 employees according to the SBA small business standards definitions.

After considering the economic impacts of these proposed changes on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. 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 proposed 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 rule according to our analysis. For more information, please refer to the Economic and Small Business Analysis that is in the docket.

Although this proposed rule will not have a significant economic impact on a substantial number of small entities, the EPA nonetheless has tried to reduce the impact of this rule on small entities. To reduce the impacts, we are correcting certain provisions of the rule as well as proposing revisions to help clarify the rule's intent. We have also proposed new provisions that increase industry's flexibility as to how they operate group 1 furnaces. We continue to be interested in the potential impacts of the proposed rule on small entities and welcome comments on issues related to such impacts.

D. Unfunded Mandates Reform Act

This proposed rule does not contain a Federal mandate under the provisions of Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531–1538 for State, local, or tribal governments or the private sector. The proposed rule would not result in expenditures of $100 million or more for State, local, and tribal governments, in aggregate, or the private sector in any 1 year. Thus, this proposed rule is not subject to the requirements of sections 202 or 205 of the UMRA.

This proposed rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments because it contains no requirements that apply to such governments nor does it impose obligations upon them.

E. Executive Order 13132: Federalism

This proposed rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. None of the facilities subject to this action are owned or operated by State governments. Thus, Executive Order 13132 does not apply to this proposed rule.

In the spirit of Executive Order 13132, and consistent with the EPA policy to promote communications between the EPA and State and local governments, the EPA specifically solicits comment on this proposed rule from State and local officials.

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

This proposed rule does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). There are no secondary aluminum production facilities that are owned or operated by tribal governments. Thus, Executive Order 13175 does not apply to this action.

The EPA specifically solicits additional comment on this proposed action from tribal officials.

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

This proposed rule 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. Moreover, the agency does not believe the environmental health risks or safety risks addressed by this action present a disproportionate risk to children.

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

This action is not a ''significant energy action'' as defined under Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355, May 22, 2001), because it is not likely to have significant adverse effect on the supply, distribution, or use of energy.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (''NTTAA''), Public Law 104–113 (15 U.S.C. 272 note), directs the EPA to use voluntary consensus standards (VCS) in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. VCS are technical standards (e.g., materials specifications, test methods, sampling procedures, business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs the EPA to provide Congress, through OMB, explanations when the agency decides not to use available and applicable VCS.

This proposed rulemaking does not involve use of any new technical standards.

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

Executive Order 12898 (59 FR 7629, February 16, 1994) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies and activities on minority populations and low income populations in the United States.

The EPA has determined that this proposed rule will not have disproportionately high and adverse human health or environmental effects on minority, low income, or indigenous populations because we have concluded that the existing rules adequately protect human health with an ample margin of safety and the proposed amendments do not decrease the level of protection provided to human health or the environment. Our analyses show that adverse environmental effects, human health multi-pathway effects and acute and chronic noncancer health impacts are unlikely. Our additional analysis of facilitywide risks for major sources showed that the maximum facilitywide cancer risks are within the range of acceptable risks and that the maximum chronic noncancer risks are unlikely to cause health impacts. 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 Agency reviewed this rule to determine if there is an overrepresentation of minority, low income, or indigenous populations near the sources such that they may currently face disproportionate risks from pollutants that could be mitigated by this rulemaking. This demographic distribution analysis only gives some indication of the prevalence of sub-populations that may be exposed to HAP pollution from the sources affected by this rulemaking; it does not identify the demographic characteristics of the

most highly affected individuals or communities, nor does it quantify the level of risk faced by those individuals or communities.

The demographic distribution analysis shows that while most demographic categories are below or within 10 percent of their corresponding national averages, the African American percentage within 3 miles of any source affected by this rulemaking exceeds the national average by 3 percentage points (16 percent versus 13 percent), or +23 percent. The area source sector-wide analysis of near source populations reveals that several demographic categories exceed 10 percent of their corresponding national averages: Minority by +16 percentage points (44% vs. 28%), or +57%; Hispanic or Latino by +17 percentage points (34% vs. 17%), or +100%; Without a High School Diploma by +6 percentage points (16% vs. 10%), or +60%, and; Below National Poverty Line: +7 percentage points (21% vs. 14%), or +50%. The facility-level demographic analysis results and the details concerning their development are presented in the OAQPS Environmental Justice Analytical Team Report, Secondary Aluminum—Area Sources, and OAQPS Environmental Justice Analytical Team Report, Secondary Aluminum—Major Sources, copies of which are available in the docket for this action (EPA–HQ–OAR–2010–0544).

National Emissions Standards for Hazardous Air Pollutants: Secondary Aluminum Production

List of Subjects in 40 CFR Part 63

Air pollution control, Environmental protection, Hazardous substances, Incorporation by reference, Reporting and recordkeeping requirements.

Dated: January 30, 2012.

Lisa P. Jackson,

Administrator.

For the reasons stated in the preamble, part 63 of title 40, chapter I, of the Code of Federal Regulations is proposed to be amended as follows:

PART 63—[AMENDED]

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

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

2. Section 63.1501 is amended by adding paragraph (d) to read as follows:

§ 63.1501 Dates.

* * * * *

(d) The owner or operator of an existing affected source must comply with the following requirements of this subpart by [DATE 90 DAYS FROM PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]: § 63.1505(a), (i)(4), (k), (k)(1),(k)(2), (k)(3); § 63.1506 (a)(1), (a)(5), (c)(1),(g)(5), (k)(3), (m)(4),(n)(1); § 63.1510 (a), (b), (b)(5),(b)(9), (d)(2), (f)(1)(ii), (i)(4), (j)(4), (n)(1), (o)(1), (o)(1)(ii), (s)(2)(iv), (t), (t)(2)(i), (t)(2)(ii), (t)(4), (t)(5); § 63.1511(a), (b), (b)(1), (b)(6), (c)(9), (f)(6), (g)(5); § 63.1512(e)(1), (e)(2),(e)(3), (e)(4), (e)(5), (h)(1), (h)(2), (j), (j)(1)(I, (j)(2)(i), (o)(1), (p), (p)(2); § 63.1513(b), (b)(1), (e)(1), (e)(2), (e)(3); § 63.1514; § 63.1516(a), (b), (b) (1)(v), (b)(2)(iii), (b)(3), (c),(d); § 63.1517(b)(16)(i), (b)(18), (c); § 63.1520.

* * * * *

3. Section 63.1502 is amended by revising paragraph (a)(1) and adding paragraph (a)(3) to read as follows:

§ 63.1502 Incorporation by reference.

(a) * * *

(1) ''Industrial Ventilation: A Manual of Recommended Practice,'' American Conference of Governmental Industrial Hygienists, (23rd edition, 1998), IBR approved for § 63.1506(c), and

* * * * *

(3) ''Industrial Ventilation: A Manual of Recommended Practice,'' American Conference of Governmental Industrial Hygienists, (27rd edition, 2010), IBR approved for § 63.1506(c).

* * * * *

4. Section 63.1503 is amended by:

a. Adding, in alphabetical order, new definitions of ''affirmative defense,'' ''bale breaker,'' ''capture and collection system,'' ''HF'' and ''Tap''; and

b. Revising the definitions of ''aluminum scrap shredder,'' ''clean charge,'' ''cover flux,'' ''Group 2 furnace,'' ''HCl,'' ''residence time,'' ''scrap dryer/delacquering kiln/decoating kiln'' and ''secondary aluminum processing unit (SAPU).''

§ 63.1503 Definitions.

Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

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.*

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 of hood(s), duct system and fan 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 with 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 agitation of the molten aluminum, for the purpose of preventing oxidation. Any flux added to a rotary furnace or other furnace that uses a molten metal pump or other device to circulate the aluminum is not a cover flux. Any reactive flux cannot be 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. Pots used to transport metal to customers 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.

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.*

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

* * * * *

5. Section 63.1505 is amended by:

a. Revising paragraph (a);
b. Revising paragraph (i)(4);
c. Revising paragraph (k);
d. Revising paragraph (k)(1)
e. Revising paragraph (k)(2); and
f. Revising paragraph (k)(3) to read as follows:

§ 63.1505 Emission standards for affected sources and emission units.

(a) *Summary.* (1) 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.

(2) For a new or existing affected sources subject to an emissions limit in paragraphs (b) through (j) of this section expressed in units of pounds per ton of feed, or µg TEQ or ng TEQ per Mg of feed, calculate your emissions during periods of startup and shutdown by dividing your measured emissions in lb/hr or µg/hr or ng/hr by the appropriate feed rate in tons/hr or Mg/hr from your most recent or current performance test.

* * * * *

(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.* On and after the compliance date established by § 63.1501, 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_{tiPM} = 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:

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

Where,

$L_{tiHCl/HF}$ = 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 and in-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the HCl limits.

(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:

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

Where,

$L_{tiD/F}$ = 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. Section 63.1506 is amended by:

a. Revising paragraph (a)(1);

b. Adding paragraph (a)(5);

c. Revising paragraph (c)(1);

d. Revising paragraph (g)(5);

e. Revising paragraph (k)(3);

f. Revising paragraph (m)(4); and

g. Revising paragraph (n)(1) to read as follows:

§ 63.1506 Operating requirements.

(a) * * *

(1) On and after the compliance date established by § 63.1501, 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 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);

* * * * *

(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.

* * * * *

(n) * * *

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

* * * * *

7. Section 63.1510 is amended by:

a. Revising paragraph (a);

b. Revising paragraph (b) introductory text;

c. Revising paragraph (b)(5);

d. Adding paragraph (b)(9);

e. Revising paragraph (d)(2);

f. Revising paragraph (f)(1)(ii);

g. Adding paragraph (i)(4);

h. Revising paragraph (j)(4);

i. Revising paragraph (n)(1);

j. Revising paragraph (o)(1);

k. Revising paragraph (o)(1)(ii);

l. Revising paragraph (s)(2)(iv);

m. Revising paragraph (t) introductory text;

n. Adding paragraph (t)(2)(i);

o. Adding paragraph (t)(2)(ii);

p. Revising paragraph (t)(4); and

q. Revising paragraph (t)(5) to read as follows:

§ 63.1510 Monitoring requirements.

(a) *Summary.* On and after the compliance date established by § 63.1501, 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)–(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 operation, maintenance and monitoring plan required in paragraph (b) of this section pertaining to each affected source listed in § 63.1500(c)(1)–(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 listed in § 63.1500(c)(1)–(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 coated 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 operation, maintenance, and monitoring (OM&M) plan. The owner or operator of an existing affected source must submit the OM&M plan to the responsible permitting authority 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 responsible permitting authority 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, unless and until the plan is revised in accordance with the following procedures. If the permitting authority 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. The owner or operator must not begin operating under the revised plan until approval is received or until after 60 days, whichever is sooner. 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 classification 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 which will be representative of the actual volumetric flow rate without the interference of leaks, the introduction of ambient air for cooling, or other ducts manifolded from other hoods. The measurement shall be performed using EPA Reference Methods 1 and 2 in appendix A to 40 CFR part 60.

* * * * *

(f) * * *

(1) * * *

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

* * * * *

(i) * * *

(4) At least once per month, verify that the lime injection rate in pound per hour (lb/hr) is no less than 90 percent of the lime injection rate used to demonstrate compliance during your performance test.

(j) * * *

(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 responsible permitting authority, a written site-specific monitoring plan. The site-specific monitoring plan must be submitted to the permitting authority 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, for uncontrolled group 1 furnaces, HF), and D/F and the proposed monitoring parameters for each pollutant. Test data must establish the highest level of PM, HCl (and, for uncontrolled group 1 furnaces, HF), and D/F that will be emitted from the furnace. This may be determined by conducting performance tests and monitoring operating parameters while charging the furnace with feed/charge materials containing the highest anticipated levels of oils and coatings and fluxing at the highest anticipated rate. If the permitting authority 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 to the permitting authority.

* * * * *

(ii) The permitting authority 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 (for uncontrolled group 1 furnaces, HF) and D/F and the proposed monitoring parameters for each pollutant. Test data must establish the highest level of PM, HCl (for uncontrolled group 1 furnaces, HF) and D/F that will be emitted from the furnace. Subject to permitting agency approval of the OM&M plan, this may be determined by conducting performance tests and monitoring operating parameters while charging the furnace with feed/charge materials containing the highest anticipated levels of oils and coatings and fluxing at the highest anticipated rate.

* * * * *

(s) * * *

(2) * * *

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

* * * * *

(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 (for uncontrolled group 1 furnaces, HF) and D/F 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, chosen to determine the emission rate of an emission unit by testing a representative unit, in accordance with § 63.1511(f), the owner of operator shall use the emission rate determined from the representative unit in the SAPU emission rate calculation required in § 63.1510(t)(4).

(ii) 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-containing reactive flux added to the emission unit is emitted as HCl and all fluorine-containing reactive flux added to the emission unit is emitted as HF.

* * * * *

(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, D/F and, for uncontrolled group 1 furnaces, HF 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).

* * * * *

8. Section 63.1511 is amended by:

a. Revising paragraph (a);

b. Revising paragraph (b) introductory text;

c. Revising paragraph (b)(1);

d. Adding paragraph (b)(6);

e. Revising paragraph (c)(9);

f. Adding paragraph (f)(6); and

g. Adding paragraph (g)(5) to 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 requirements, and must obtain approval of the plan pursuant to the procedures, set forth in § 63.7(c). 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 existing affected source 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). The owner or operator of any new affected source 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(b). 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 with the scrap containing the highest level of contamination, at the highest rate of production and using the highest reactive fluxing rate while an air pollution control device is operating. Any subsequent performance tests for the purposes of establishing new or revised parametric limits shall be allowed upon pre-approval from the permitting authorities as specified in the site-specific test plan. These new parametric settings shall be used to demonstrate compliance for the period being tested.

* * * * *

(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.

(c) * * *

(9) Method 26A for the concentration of HCl and HF. 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.

* * * * *

(f) * * *

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

(g) * * *

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

* * * * *

9. Section 63.1512 is amended by:

a. Revising paragraph (e)(1);

b. Revising paragraph (e)(2);

c. Revising paragraph (e)(3);

d. Adding paragraphs (e)(4);

e. Adding paragraphs (e)(5);

f. Revising paragraph (h)(1);

g. Revising paragraph (h)(2);

h. Revising paragraph (j);

i. Revising paragraph (j)(1)(i);

j. Revising paragraph (j)(2)(i);

k. Revising paragraph (o)(1);

l. Revising paragraph (p)(2) to read as follows:

§ 63.1512 Performance test/compliance demonstration requirements and procedures.

* * * * *

(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.

(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 reactive flux added to the group 1 furnace is emitted. 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 paragraph (e)(4)(i) or paragraph (e)(4)(ii) of this section at the next required performance test.

(i) Install hooding that meets ACGIH Guidelines, or

(ii) Assume a 67-percent capture efficiency for the furnace exhaust (i.e., multiply emissions measured at the furnace exhaust outlet by 1.5) if hooding does not meet ACGIH Guidelines. 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 90 days, or petition the permitting authority that such hoods are impracticable and propose testing procedures that will minimize fugitive emissions.

(5) When testing a new uncontrolled furnace the owner or operator must either:

(i) Install hooding that meets ACGIH Guidelines, or

(ii) Petition the permitting authority that such hoods are impracticable and propose testing procedures that will minimize fugitive emissions.

* * * * *

(h) * * *

(1) The owner or operator of an in-line fluxer that uses reactive flux materials must conduct a performance test to measure emissions of HCl and PM or otherwise demonstrate compliance in accordance with paragraph (h)(2) of this section. If the in-line fluxer is equipped with an add-on control device, the emissions must be measured at the outlet of the control device.

(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 which 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 utilize 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 HCl or HF (for the emission limits); or

* * * * *

(2) * * *

(i) Emissions of HCl or HF (for the emission limits); or

* * * * *

(o) * * *

(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;

* * * * *

(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 during the runs, determine and record the average feed rate and lime injection rate from the 3 runs.

* * * * *

10. Section 63.1513 is amended by:

a. Revising paragraph (b) introductory text;

b. Revising paragraph (b)(1);

c. Revising paragraph (e)(1);

d. Revising paragraph (e)(2); and

e. Revising paragraph (e)(3)to read as follows:

§ 63.1513 Performance test/compliance demonstration requirements and procedures.

* * * * *

(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, kg/Mg (lb/ton) of feed;

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

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

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

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

* * * * *

(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 unit i; and

n = The number of individual 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).

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

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).

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

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.

* * * * *

11. Section 63.1514 is revised to read as follows:

§ 63.1514 Change of Furnace Classification.

The requirements of this section are in addition to the other requirement 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 to demonstrate to the regulatory authority 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. Performance tests must be repeated at least once every 5 years to demonstrate compliance for each operating mode.

(i) The performance tests must be conducted with the scrap containing the highest level of contamination expected to be processed, at the highest throughput expected and using the highest rate of reactive flux injection expected to be processed in controlled mode.

(ii) Parameters for capture, flux rate, and lime injection must be established during these tests.

(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 additional performance tests for PM, HCl, HF and D/F, 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 with each operating mode.

(i) Testing under this paragraph may be conducted at any time after the furnace has completed 1 or more charge to tap cycles, or 24 operating hours with scrap of the highest level of contamination expected to be processed in uncontrolled mode.

(ii) Testing under this paragraph must be conducted with furnace emissions captured in accordance with the provisions of § 63.1512(e)(4) and directed to the stack or vent tested.

(iii) Parameters for capture and flux rate must be established during these tests.

(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.

(i) The performance tests must be conducted with the scrap containing the highest level of contamination expected to be processed, at the highest throughput expected to be processes and using the highest rate of reactive flux expected to be injected in controlled mode.

(ii) Parameters for capture, flux rate, and lime injection must be established during these tests.

(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.

(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.

(i) Testing under this paragraph may be conducted at any time after the furnace has completed 1 or more charge to tap cycles, or 24 operating hours with scrap of the highest level of contamination expected to be processed in 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) Parameters for capture and flux rate must be established during these tests. In addition, the number of cycles of furnace operation with scrap of the highest level of contamination expected to be processed in uncontrolled mode that elapsed prior to the performance test(s) conducted in uncontrolled mode is established as a parameter.

(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, 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, and

(iii) Begin lime addition to the control device at the rate established for controlled mode.

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

(i) Change the label on the furnace to reflect controlled 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 charge to tap cycles that elapsed with scrap of a contamination level no higher than that used in the uncontrolled mode performance test(s), 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 operate under controlled mode with other than clean charge and uncontrolled mode with clean charge must conduct performance tests to demonstrate to the delegated regulatory authority 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 with the capture system and control device operating normally. Performance tests must be repeated at least once every 5 years to demonstrate compliance for each operating mode.

(i) The performance tests must be conducted with the scrap containing the highest level of contamination expected to be processed, at the highest throughput expected to be processed and using the highest rate of reactive flux injection expected in controlled mode.

(ii) Parameters for capture, flux rate, and lime injection must be established during these tests.

(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 and D/F, according to the procedures in § 63.1512 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 may be conducted at any time after the furnace has completed 1 or more charge to tap cycles with clean charge.

(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) Parameters for capture and flux rate must be established during these tests.

(iv) Emissions of D/F during this test must not exceed 1.5 μg TEQ/Mg of feed/charge processed, or this mode of operation is not allowed.

(v) The emission factors for PM, HCl and HF 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 additional performance tests for D/F, according to the procedures in § 63.1512 with the capture system and control device operating normally.

(i) The performance tests must be conducted with the scrap containing the highest level of contamination expected to be processed, at the highest throughput expected to be processed and using the highest rate of reactive flux injection expected in controlled mode.

(ii) Parameters for capture, flux rate, and lime injection must be established during these tests.

(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 additional performance tests for D/F, according to the procedures in § 63.1512(e) without operating a control device.

(i) Testing may be conducted at any time after the furnace has completed 1 or more charge to tap cycles with scrap of the highest level of contamination expected to be processed in uncontrolled mode at the highest throughput expected to be processed in 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) Parameters for flux rate must be established during these tests. In addition the number of cycles of furnace operation with scrap of the highest level of contamination expected to be processed in uncontrolled mode that elapsed prior to the performance test(s) conducted in uncontrolled mode is established as a parameter.

(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, 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, and

(iii) Begin lime addition to the control device at the rate established for controlled mode.

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

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

(ii) Charge clean charge for the number of charge to tap cycles that 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 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 additional performance tests to demonstrate to the delegated regulatory authority that compliance can be achieved under group 1 mode and establish the number of cycles of operation with clean charge and no reactive flux addition necessary to elapse 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 additional performance tests for PM, HCl, HF and D/F, according to the procedures in § 63.1512. Controlled group 1 furnaces must conduct performance tests with the capture system and control device operating normally. Performance tests must be repeated at least once every 5 years to demonstrate compliance for each operating mode.

(i) The performance tests must be conducted with scrap containing the highest level of contamination expected to be processed, at the highest throughput expected to be processed and using the highest rate of reactive flux expected to be injected in controlled mode.

(ii) Parameters for throughput, capture, flux rate, and lime injection must be established during these tests.

(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 additional performance tests for PM, HCl, HF and D/F, 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 may be conducted at any time after the furnace has completed 1 or more charge-to-tap cycles, or 24 operating hours 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 ton of feed/charge,

(B) 0.04 lb HCl or HF per ton of feed/charge, and

(C) 0.04 lb PM per ton of feed/charge.

(iv) The number of charge-to-tap cycles, or operating hours elapsed before the group 2 furnace performance tests were conducted is established as an operating parameter to be met before changing to group 2 mode.

(3) Operators of area sources must conduct an additional performance test for D/F, according to the procedures in § 63.1512. Controlled group 1 furnaces must conduct performance tests with the capture system and control device operating normally.

(i) The performance test must be conducted with the scrap containing the highest level of contamination expected to be processed, at the highest throughput expected to be processed and using the highest rate of reactive flux expected to be injected in group 1 mode.

(ii) Parameters for throughput, flux rate, and lime injection must be established during these tests.

(iii) If the furnace is equipped with a control device parameter(s) for capture must be established.

(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.

(4) While in compliance with the operating standards of § 63.1506(o) for group 2 furnaces, operators of area sources must conduct an additional performance test for D/F, according to the procedures in § 63.1512(e), without operating a control device.

(i) Testing under this paragraph may be conducted at any time after the furnace has completed 1 or more charge-to-tap cycles, or 24 operating hours 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 ton of feed/charge.

(iv) The number of charge-to-tap cycles, or operating hours elapsed before the group 2 furnace performance tests were conducted is established as an operating parameter to be met before changing to group 2 mode.

(5) To change modes of operation from a group 1 furnace to a group 2 furnace, the owner or operator must

(i) discontinue addition of other than clean charge;

(ii) discontinue addition of reactive flux;

(iii) change the label on the furnace to reflect group 2 operation;

(iv) and if the furnace is equipped with a control device, allow the number of cycles of operation established in paragraph (c) of this section to elapse before turning off the control device or diverting emissions from the control device. In addition control device parameters related to lime addition, capture, and inlet temperature must be maintained during this period.

(6) To change mode of operation from a group 2 furnace to group 1 furnace, the owner or operator must change the label to reflect group 1 operation. If a control device is required for group 1 operation, the owner or operator must direct the emissions to the control device and maintain control device parameters related to lime addition, capture, and inlet temperature.

(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, wishing to change operating modes, must conduct additional performance tests to demonstrate that compliance can be achieved under group 1 mode. Operating parameters relevant to group 1 operation must be established during the performance test.

(1) Operators of major sources must conduct additional performance tests for PM, HCl, HF and D/F, according to the procedures in § 63.1512. Controlled group 1 furnaces must conduct performance tests with the capture system and control device operating normally. The performance tests must be conducted with the scrap containing the highest level of contamination expected to be processed, at the highest throughput expected to be processed and using the highest rate of reactive flux expected to be injected in controlled mode. Performance tests must be repeated at least once every 5 years to demonstrate compliance for each operating mode.

(i) Parameters for throughput, capture, flux rate, and lime injection must be established during these tests.

(ii) 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 an additional performance test for D/F, according to the procedures in § 63.1512. Operators of controlled group 1 furnaces must conduct performance tests with the capture system and control device operating normally. Performance tests must be repeated at least once every 5 years to demonstrate compliance for each operating mode.

(i) The performance test must be conducted with the scrap containing the highest level of contamination expected to be processed, at the highest throughput expected to be processed and using the highest rate of reactive flux injection expected in group 1 mode.

(ii) Parameters for throughput, flux rate, and lime injection must be established during these tests.

(iii) If the furnace is equipped with a control device parameter(s) for capture must be established.

(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.

(3) To change modes from group 1 to group 2 the operator must:

(i) Completely remove all aluminum from the furnace;

(ii) Change the furnace label;

(iii) Use only clean charge; and

(iv) Use no reactive flux;

(4) To change modes from group 2 to group 1 the owner or operator must, before charging 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 any, and,

(iii) Begin lime addition to the control device, if any.

(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 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 bypass to control device.

(e) *Frequency of changing furnace operating mode.* Changing furnace operating mode and reversion to the previous mode, as provided in paragraphs (a) through (d) of this section

may not be done more frequently than once every 6 months, except that controlled furnaces may change operating modes (and revert to prechange operating mode) without restriction on frequency, when the air pollution control device must be shut down for planned maintenance.

* * * * *

§ 63.1515 [Amended]

12. Section 63.1515 is amended by removing paragraph (b)(10).

13. Section 63.1516 is amended by:

a. Removing and reserving paragraph (a);

b. Revising paragraph (b) introductory text;

c. Removing and reserving paragraph (b)(1)(v);

d. Revising paragraph (b)(2)(iii);

e. Adding paragraph (b)(3);

f. Revising paragraph (c) introductory text; and

g. Adding paragraph (d) to read as follows:

§ 63.1516 Reports.

(a) [Reserved]

(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) * * *

(iii) For each sidewell group 1 furnace with add-on air pollution control devices: ''Each furnace was operated such that the level of molten metal remained above the top of the passage between the sidewell and hearth during reactive fluxing, and reactive flux, except for cover flux, was added only to the sidewell or to a furnace hearth equipped with an add-on air pollution control device for PM, HCl, HF and D/F emissions during this reporting period.''

* * * * *

(3) * * *

(i) Within 60 days after the date of completing each performance test (defined in § 63.2) as required by this subpart you must transmit the results of the performance tests required by this subpart to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, you must also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority.

(ii) All reports required by this subpart not subject to the requirements in paragraphs (1)(i) and (ii) of this section must be sent to the Administrator at the appropriate address listed in § 63.13. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports subject to paragraph (1)(i) and (ii) of this section in paper format.

(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 or area 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 number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §§ 63.1506(a)(5) and 63.1520(a)(8), including actions taken to correct a malfunction.

* * * * *

14. Section 63.1517 is amended by:

a. Revising paragraph (b)(16)(i);

b. Adding paragraph (b)(18); and

c. Adding paragraph (c) to read as follows:

§ 63.1517 Records.

* * * * *

(b) * * *

(16) * * *

(i) [Reserved];

* * * * *

(18) For each malfunction for which the owner or operator chooses to claim coverage under the affirmative defense provisions, the owner or operator must maintain the following records;

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

(ii) Records of actions taken during periods of malfunction to minimize emissions in accordance with §§ 63.1506(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.

(c) 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 63.1520 is revised to read as follows:

§ 63.1520 Affirmative defense for violation of emission limit during malfunction.

In response to an action to enforce the standards set forth in this subpart, you may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at § 63.2. Appropriate penalties may be assessed, however, if you fail to meet your burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(a) To establish the affirmative defense in any action to enforce such a limit, you must timely meet the notification requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that:

(1) The excess emissions:

(i) Were caused by a sudden, infrequent and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner; and

(ii) Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

(iii) Did not stem from any activity or event that could have been foreseen and avoided, or planned for.

(iv) Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(2) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(3) The frequency, amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions; and

(4) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(5) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment and human health; and

(6) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(7) All of the actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs; and

(8) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and

(9) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

(b) *Reports.* The owner or operator seeking to assert an affirmative defense shall submit a written report to the Administrator within 45 days of the initial occurrence of the violation of the standards in this subpart, which may be the end of any applicable averaging period, to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (a) of this section. The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45 day period. Until a request for an extension has been approved by the Administrator, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the violation.

* * * * *

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

Table 1 to Subpart RRR – Emission standards for New and Existing Affected Sources

Affected source/Emission unit	Pollutant	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 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	0.8	lb/ton of feed
	D/F[a]	2.5	ug TEQ/Mg of feed
New and existing scrap dryer/delacquering kiln/decoating kiln	PM	0.08	lb/ton of feed
or	HCl	0.8	lb/ton of feed
	THC	0.06	lb/ton of feed
	D/F[b]	0.25	ug TEQ/Mg of feed
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	0.3	lb/ton of feed
	HCl	1.5	lb/ton of feed
	THC	0.2	lb/ton of feed
	D/F[a]	5	ug TEQ/Mg of feed
New or existing sweat furnace	D/F[a]	0.8	ng TEQ/dscm @ 11% O2[b]
New or existing dross-only furnace	PM	0.3	lb/ton of feed
New or existing in-line fluxer	HCL	0.04	lb/ton of feed
	PM	0.01	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	0.8	lb/ton of feed
	HCL	0.4	lb/ton of feed
	HF	0.4	lb/ton of feed
	or		
		10	percent of the HCl upstream of the add-on control device
New and existing group 1 furnace[c]	PM	0.4	lb/ton of feed
	HCL	0.4	lb/ton of feed
	HF	0.4	lb/ton of feed
	or		
		10	percent of the HCl upstream of the add-on control device
	D/F[b]	15	ug/TEQ/Mg of feed
New and existing group 1 furnace with clean charge only[c]	PM	0.4	lb/ton of feed
	HCL	0.4	lb/ton of feed
	HF	0.4	lb/ton of feed
	or		
		10	percent of the HCl upstream of the add-on control device
	D/F[a]	No limit	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 all simultaneously constructed new group 1 furnaces and new in-lie fluxers)	PM[e]	$L_{C_{PM}} = \frac{\sum_{i=1}^{n}\left(L_{ti_{PM}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)}$ (Eq. 1)	
	HCl or HF[f]	$L_{cHCl/HF} = \frac{\sum_{i=1}^{n}\left(L_{tiHCl/HF} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)}$ (Eq. 2)	

	D/F[g]	$L_{cD/F} = \frac{\sum_{i=1}^{n} (L_{tiD/F} \times T_{ti})}{\sum_{i=1}^{n} (T_{ti})}$ (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.

[d] 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. (Need to check. These are slightly different that what is in the text of the rule)

[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 limits.

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

* * * * *

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. Adding the entry Thermal chip dryer, scrap dryer/delacquering kiln/decoating kiln, sweat furnace, dross-only furnace, and group 1 furnace; and

f. Adding footnote d to Table 2 to 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 Industrial Ventilation: A Handbook of Recommended Practice, 23rd or 27th edition; operate in accordance with OM&M plan.[b]

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
* *	* * *	* *
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 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 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).
	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.
	Lime injection rate	Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection systems; maintain feeder setting at level established at performance test for continuous injection systems.

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
	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.
* *	* * *	* *
	Furnaces that will be idle for at least 24 hours and will burn clean fuel only, will not receive new charge, flux or alloying material.	Associated fans, hoods and APCD may be temporarily turned off. Before charging resumes, all associated fans, hoods and APCD must be turned on and operated continuously.
* *	* * *	* *

[d] APCD—Air pollution control device.

* * * * *

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 Aluminum scrap shredder with fabric filter;

c. Revising the entry Scrap dryer/delacquering kiln/decoating kiln with afterburner and lime-injected fabric filter;

d. Revising entry Dross-only furnace with fabric filter;

e. Revising the entry Rotary dross cooler with fabric filter;

f. Revising the entry In-line fluxer with lime-injected fabric filter;

g. Revising the entry Group 1 furnace with lime-injected fabric filter;

h. Removing footnote c to Table 3; and

i. Revising footnote d to Table 3 to 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 standards. Inspection includes volumetric flow rate measurements.
*	* *	* * * *
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.
*	* *	* * * *
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.

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
*	* *	* * * *
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 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.[d] 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.
	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.[d] 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 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 manufacturers 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.

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
	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.
* * * * * * *		

[c] Permitting agency may approve other alternatives including load cells for lime hopper weight, sensors for carrier gas pressure, or HCl monitoring devices at fabric filter outlet.

* * * * *

19. Appendix A to Subpart RRR of part 63 is amended by:

a. Removing entry 63.6(e)(1)–(2);

b. Adding entries 63.6(e)(1)(i) and 63.6(e)(1)ii);

c. Adding entry 63.6(e)(2);

d. Revising entry 63.6(e)(3)

e. Removing entry 63.6(f);

f. Adding entries 63.6(f)(1) and 63.6(f)(2);

g. Removing entries 63.6((h);

h. Adding entries 63.6(h)(1) and 63.6(h)(2);

i. Removing entries 63.7((e);

j. Adding entries 63.7(e)(1) and 63.7(e)(2);

k. Removing entries 63.8((c)(1)–(3);

l. Adding entries 63.8(c)(1)(i), 63.8(c)(1)(ii), 63.8(c)(1)(iii), 63.8(c)(1)(iv) and 63.7(e)(2)–(3);

m. Removing entries 63.10((b);

n. Adding entries 63.10(b)(1), 63.10(b)(2)(i),(ii), (iv) and (v), and 63.10(b)(2)(iii);

o. Revising entry 63.10(c)(10)–(13);

p. Revising entry 63.10(d)(4)–(5); and

q. Revising entries 63.14 to read as follows:

APPENDIX A TO SUBPART RRR OF PART 63—APPLICABILITY OF GENERAL PROVISIONS 40 CFR PART 63, SUBPART RRR

Citation	Requirement	Applies to RRR	Comment
* * * * * * *			
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 incorporated by reference shall be treated as a cross reference to § 63.1506(a)(5).
63.6(e)(1)(ii)		No	
* * * * * * *			
63.6(e)(2))		Yes	
* * * * * * *			
§ 63.6(e)(3)	Startup, Shutdown Plan	No	
* * * * * * *			
§ 63.6(f)(1)	Compliance with Emission Standards.	No	
§ 63.6(f)(2)	Compliance with Emission Standards.	Yes	
* * * * * * *			
§ 63.6(h)(1)	Compliance with Opacity/VE Standards.	No	
§ 63.6(h)(2)	Compliance with Opacity/VE Standards.	Yes	
* * * * * * *			
§ 63.7(e)(1)	Conduct of Tests	No	See 63.1511(a).
§ 63.7(e)(2)	Conduct of Tests	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)	CMS Operation and Maintenance	NO	

APPENDIX A TO SUBPART RRR OF PART 63—APPLICABILITY OF GENERAL PROVISIONS 40 CFR PART 63, SUBPART RRR—Continued

Citation	Requirement	Applies to RRR	Comment
* *	* *	* *	* *
§ 63.8(d)(3)	Quality Control	Yes, except for last sentence, which refers to an SSM plan. SSM plans are not required.	
* *	* *	* *	* *
§ 63.10(b)(1)	General Requirements	Yes	See 63.1517 includes additional requirements.
* *	* *	* *	* *
§ 63.10(b)(2)(i), (ii), (iv) and (v)	General Requirements	No	See 63.1517(b)(18) for recordkeeping of occurrence and duration of malfunctions and recordkeeping of actions taken during malfunction.
§ 63.10(b)(2)(iii) and (vi) to (ix)	General Requirements	Yes	See 63.1517 includes additional requirements.
* *	* *	* *	* *
§ 63.10(c)(10)–(13)		No	See 63.1517(b)(18) for recordkeeping of malfunctions.
* *	* *	* *	* *
§ 63.10(c)(15)	General Requirements	No	
* *	* *	* *	* *
§ 63.10(d)(4)–(5)	Progress Reports/Startup, Shutdown, and Malfunction Reports.	No	
* *	* *	* *	* *
§ 63.14	Incorporation by Reference	Yes	ACGIH Industrial Ventilation Manual for capture/collection systems; and Interim Procedures for Estimating Risk Associated with Exposure to Mixtures of Chlorinated Dibenzofurans (CDDs and CDFs) and 1989 Update (incorporated by reference in § 63.1502).
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