ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[IL–64–2–5807; FRL–6217–2]

RIN 2060–AE77

National Emission Standards for Hazardous Air Pollutants for Source Categories; National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule and notice of public hearing.

SUMMARY: This action proposes national emission standards for hazardous air pollutants (NESHAP) for new and existing sources at secondary aluminum production facilities. Hazardous air pollutants (HAPs) emitted by the facilities that would be regulated by this proposed rule include HAP organics, inorganic HAPs (hydrogen chloride, hydrogen fluoride, and chlorine), and particulate HAP metals. Some of these pollutants, including 2,3,7,8-tetrachlorodibenzo-p-dioxin, are considered to be known or suspected carcinogens and all can cause toxic effects following sufficient exposure. Emissions of other pollutants include particulate matter and volatile organic compounds.

The standards are proposed under the authority of section 112(d) of the Clean Air Act (the Act) and are based on the Administrator's determination that secondary aluminum production plants are major sources of HAP emissions and emit several of the HAPs listed in section 112(b) of the Act from the various process operations found within the industry. The proposed NESHAP would reduce risks to public health and environment by requiring secondary aluminum production plants to meet emission standards reflecting application of the maximum available control technology (MACT). Secondary aluminum production plants that are area sources would be subject to limitations on emissions of dioxins and furans (D/F) only. Implementation of the proposed NESHAP would reduce emissions of HAPs and other pollutants by about 16,600 megagrams per year (Mg/yr) (18,300 tons per year (tpy)).

DATES: Comments. The EPA will accept comments on the proposed rule until April 12, 1999.

Public Hearing. If anyone contacts EPA requesting to speak at a public hearing by March 4, 1999, a public hearing will be held on March 15, 1999 beginning at 10 a.m., at the EPA Office of Administration Auditorium, Research Triangle Park, NC. For more information, see section VII.B of the **SUPPLEMENTARY INFORMATION** section.

ADDRESSES: *Comments.* Interested parties may submit written comments (in duplicate, if possible) to Docket No. A–92–61 at the following address: Air and Radiation Docket and Information Center (6102), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460. The EPA requests that a separate copy of the comments also be sent to the contact person listed below. The docket is located at the above address in Room M–1500, Waterside Mall (ground floor).

A copy of today's document, technical background information, and other materials relating to this rulemaking are available for review in the docket. Copies of this information may be obtained by request from the Air Docket by calling (202) 260–7548. A reasonable fee may be charged for copying docket materials.

Public Hearing. If anyone contacts the EPA requesting a public hearing by the required date (see *DATES*), the public hearing will be held at the EPA Office of Administration Auditorium, Research Triangle Park, NC. Persons interested in making oral presentations should notify Ms. Tanya Medley, Minerals and Inorganic Chemicals Group, Emission Standards Division (MD–13), U. S. Environmental Protection Agency, Research Triangle Park, NC 27711, telephone number (919) 541–5422.

FOR FURTHER INFORMATION CONTACT: For information concerning the proposed regulation, contact Juan Santiago, Minerals and Inorganic Chemicals Group, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711, telephone number (919) 541–1084, facsimile number (919) 541–5600, electronic mail address, ''santiago.juan@epamail.epa.gov.''

SUPPLEMENTARY INFORMATION:

Regulated Entities

Entities potentially regulated by this action are ''secondary aluminum production facilities'' using post-consumer scrap, aluminum scrap, ingots, foundry returns, and/or dross as the raw material and operating one or more of the following affected sources: Scrap shredders, scrap dryer/delacquering/decoating kilns, chip dryers, group 2 process furnaces (i.e., clean charge furnaces using no reactive flux), sweat furnaces, dross-only furnaces, rotary dross coolers, secondary aluminum processing units, new and reconstructed group 1 furnaces (i. e., melting, holding, fluxing, refining or alloying), and new and reconstructed in-line fluxers. The EPA identified more than 400 facilities which include one or more of these affected sources, 86 of which are estimated to be major sources. Most establishments are included in SIC 3341 (Secondary Smelting and Refining of Nonferrous Metals), although others may fall in SIC 3353 (Aluminum Sheet, Plate, and Foil), SIC 3354 (Aluminum Extruded Products), and SIC 3355 (Aluminum Rolling and Drawing NEC). Affected sources at facilities that are major sources of HAPs would be regulated under the proposed standards. In addition, emissions of dioxins and furans (D/F) from affected sources at facilities that are area sources of HAPs would also be regulated.

The proposed standards would not apply to facilities in SIC 336 (Nonferrous Foundries/Casting), such as manufacturers of aluminum die castings (SIC 3363) that use only clean aluminum and aluminum foundries (SIC 3365) that process only clean aluminum. Secondary aluminum production facilities that are collocated with primary aluminum production are regulated under the proposed standard.

Regulated categories and entities include:

Category	Examples of regulated entities
Industry	Owners or operators of secondary aluminum production facilities in SIC 3341, 3353, 3354, 3355, or that are collocated with primary aluminum production facilities, that are major sources of HAPs, or that emit dioxins and furans and are area sources of HAPs.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that the Agency is now aware could potentially be regulated by this action. Other types of entities not listed in the table also could be regulated. To determine whether your facility is regulated by this action, you should carefully examine the applicability criteria in § 63.1500 of the proposed rule. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Technology Transfer Network

The proposed regulatory text also is available on the Technology Transfer Network (TTN), one of EPA's electronic bulletin boards. The TTN provides information and technology exchange in various areas of air pollution control.

The service is free, except for the cost of a phone call. Dial (919) 541–5742 for up to a 14,400 BPS modem. The TTN also is accessible through the Internet at ''TELNET ttnbbs.rtpnc.epa.gov.'' If more information on the TTN is needed, call the HELP line at (919) 541–5384. The help desk is staffed from 11 a.m. to 5 p.m.; a voice menu system is available at other times.

Electronic Access and Filing Addresses

The official record for this rulemaking, as well as the public version, has been established under Docket No. A–92–61 (including comments and data submitted electronically). A public version of this record, including printed, paper versions of electronic comments, which does not include any information claimed as confidential business information (CBI), is available for inspection from 8 a.m. to 5:30 p.m., Monday through Friday, excluding legal holidays. The official rulemaking record is located at the address in **ADDRESSES** at the beginning of this document.

Electronic comments can be sent directly to the EPA's Air and Radiation Docket and Information Center at: ''A-and-R-Docket@epamail.epa.gov.'' Electronic comments must be submitted as an ASCII file avoiding the use of special characters and any form of encryption. Comments and data will also be accepted on disks in Wordperfect 5.1 file format or ASCII file format. All comments and data in electronic form must be identified by the docket number (A–92–61). Electronic comments may be filed online at many Federal Depository Libraries.

Outline

The information in this preamble is organized as shown below.

I. Statutory Authority

The statutory authority for this proposal is provided by sections 101, 112, 114, 116, and 301 of the Clean Air Act, as amended (42 U.S.C. 7401, 7412, 7414, 7416, and 7601).

II. Introduction

A. Background

The EPA estimates that about 28,600 Mg/yr (31,500 tpy) of HAPs and other air pollutants are released from production processes in 86 major-source secondary aluminum production facilities. The HAPs in these emissions consist of several organic compounds, including 2,3,7,8-TCDD (a compound in the dioxin/furans (D/F) group); inorganic ''acid gas'' compounds such as hydrogen chloride (HCl), hydrogen fluroride (HF), and chlorine (Cl_2); and 11 nonvolatile HAP metals. NonHAP particulate matter (PM) and volatile organic compounds (VOCs) are also emitted.

The proposed standard reduces emissions of HAPs and other pollutants using a combination of emission limits and pollution prevention/work practice standards based on MACT floor controls. Depending on the type of affected source, plants affected by the standards could achieve the proposed requirements by upgrading or installing a fabric filter or a lime-injected fabric filter (i.e., a fabric filter to which lime or other alkaline reagent is continuously injected). Or, plants may be required to add a thermal incinerator (also known as an afterburner), a thermal incinerator followed by a lime-injected fabric filter, and/or apply pollution prevention techniques to limit the type of scrap charged and the type and amount of fluxing agents used. Raising the control performance of affected sources with MACT-level standards would reduce emissions of HAPs by 70 percent and other pollutants by about 42 percent from the current level, with higher reductions achieved at particular sites. Emissions of HCl would be decreased by about 74 percent.

The nationwide total capital and annualized costs of control equipment are estimated at $148 million and $68 million/yr, respectively. An additional $5.1 million per year is estimated for monitoring/implementation costs for the first 3 years following promulgation. The economic impacts of the proposed regulation are expected to be minimal with price increases and production decreases of less than one percent. The regulation is not expected to result in a significant economic impact for a substantial number of small entities. Only one of the 33 small entities is anticipated to experience significantly adverse economic impacts as a result of this regulation.

The proposed NESHAP was developed by EPA with input from industry representatives and associated groups including the Aluminum Association and STAPPA/ALAPCO (State and Territorial Air Pollution Program Administrators Association/ Association of Local Air Pollution Control Officials). The rule development process included a cooperative effort with the industry in identifying data needs; collecting additional data; planning and conducting emission tests; and meeting with these representatives to share technical information and resolve issues.

B. NESHAP for Source Categories

Section 112 of the Act requires that EPA promulgate regulations for the control of HAP emissions from both new and existing major sources. The regulations must reflect the maximum degree of reduction in emissions of HAPs that is achievable taking into consideration the cost of achieving the emission reduction, any nonair quality health and environmental impacts, and energy requirements. This level of control is commonly referred to as MACT.

The control of HAPs is achieved through the promulgation of technology-based emission standards under sections 112(d) and 112(f) and work practice standards under 112(h) for categories of sources that emit HAPs. Emission reductions may be accomplished through the application of measures, processes, methods, systems, or techniques including, but not limited to: (1) Reducing the volume of, or eliminating emissions of, such pollutants through process changes, substitution of materials, or other modifications; (2) enclosing systems or processes to eliminate emissions; (3) collecting, capturing, or treating such pollutants when released from a process, stack, storage or fugitive emissions point; (4) design, equipment, work practice, or operational standards (including requirements for operator training or certification) as provided in section (h); or (5) a combination of the above. (See section 112(d)(2).)

C. Health Effects of Pollutants

The Clean Air Act was created in part to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population. (See section 101(b)(1).) Section 112(b) of the Act contains a list of HAPs believed to cause adverse health or environmental effects. Section 112(d) of the Act requires that emission standards be promulgated for all categories and subcategories of major sources of these HAPs and for many smaller ''area'' sources listed for regulation under section 112(c) in accordance with the schedules listed under section 112(c). Major sources are defined as those that emit or have the potential to emit at least 10 tons per year (tpy) of any single HAP or 25 tpy of any combination of HAPs.

In the 1990 Amendments to the Clean Air Act, Congress specified that each standard for major sources must require the maximum reduction in emissions of HAPs that EPA determines is achievable considering cost, health and environmental impacts, and energy impacts. In essence, these MACT standards would ensure that all major sources of air toxic emissions achieve the level of control already being achieved by the better controlled and lower emitting sources in each category. This approach provides assurance to citizens that each major source of toxic air pollution will be required to effectively control its emissions. At the same time, this approach provides a ''level economic playing field,'' ensuring that facilities that employ cleaner processes and good emissions control are not disadvantaged relative to competitors with poorer controls.

Emission data, collected during development of this NESHAP, show that pollutants listed in section 112(b)(1) are emitted by secondary aluminum production processes and include organic HAPs (e.g., D/F, benzene, styrene, xylene, acrylonitrile, methylene chloride, naphthalene, and formaldehyde); inorganic HAPs (HCl, HF, and Cl_2), and HAP metals (antimony, arsenic, lead, manganese, beryllium, cadmium, chromium, cobalt, mercury, nickel, and selenium). Emissions of these pollutants would be decreased by implementation of the proposed emission limits. Some of these pollutants are either known or probable human carcinogens when inhaled, and can cause reversible and irreversible toxic effects other than cancer following sufficient exposure. These effects include respiratory and skin irritation, effects upon the eye, various systemic effects including effects upon the liver, kidney, heart and circulatory system, neurotoxic effects, and in extreme cases, death. Following is a summary of the potential health and environmental effects associated with exposures, at some level, to emitted pollutants that would be reduced by the standard.

Almost all metals appearing on the section 112(b) list of HAPs are emitted from affected sources in secondary aluminum plants. These metals can cause a range of effects including irritation of the respiratory tract; gastrointestinal effects; nervous system disorders (including loss of coordination and mental retardation); skin irritation; and reproductive and developmental disorders. Additionally, these metals accumulate in the environment and several of them accumulate in the human body, and may cause adverse health effects after exposure has ceased. Cadmium, for example, is a cumulative pollutant that can cause kidney effects after the cessation of exposure. Similarly, the onset of effects from beryllium exposure may be delayed by months to years. Many of the metal compounds also are known (arsenic, chromium (VI)) or probable (cadmium, nickel carbonyl, lead, and beryllium) human carcinogens.

Each HAP organic compound has a range of potential health effects associated with exposures above toxic thresholds. Effects generally associated with short-term inhalation exposure to these pollutants include irritation of the eyes, skin, and respiratory tract; central nervous system effects (e.g., drowsiness, dizziness, headaches, depression, nausea, abnormal electrocardiograms); and reproductive and developmental effects. Health effects associated with long-term inhalation exposure in humans to the organic compounds which will potentially be decreased by the proposed standard may include mild symptoms such as nausea, headache, weakness, insomnia, gastrointestinal effects, and burning eyes; disorders of the blood; toxicity to the immune system; reproductive disorders in women (e.g., menstrual irregularity or increased risk of spontaneous abortion); developmental effects; and injury to the liver and kidneys. In addition to non-cancer effects, some of the organic HAPs that would be controlled under this proposed NESHAP are either known or probable human carcinogens.

Hydrogen chloride is highly corrosive to the eyes, skin, and mucous membranes. Short-term inhalation of HCl by humans may cause coughing, hoarseness, inflammation and ulceration of the respiratory tract, as well as chest pain and pulmonary edema. Long-term occupational exposure of humans to HCl has been reported to cause inflammation of the stomach, skin, and lungs, and photosensitization.

Acute exposure to hydrogen fluoride will result in irritation, burns, ulcerous lesions, and necrosis of the eyes, skin, and mucous membranes. Total destruction of the eyes is possible. Other effects include nausea, vomiting, diarrhea, pneumonitis (inflammation of the lungs), and circulatory collapse. Ingestion of an estimated 1.5 grams produced sudden death without gross pathological damage. Repeated ingestion of small amounts resulted in moderately advanced hardening of the bones. Contact of skin with anhydrous liquid produces severe burns. Inhalation of anhydrous hydrogen fluoride or hydrogen fluoride mist or vapors can cause severe respiratory tract irritation that may be fatal.

The irritating properties of Cl_2 make this HAP a serious acute respiratory hazard, as well as a skin, eye, and throat irritant. Prolonged exposure to low concentrations can cause respiratory problems, tooth corrosion, inflammation of the mucous membranes, and susceptibility to tuberculosis. Prolonged exposure at moderate concentrations can cause decreased lung capacity.

Several of the HAP whose emissions will be reduced by this rule have been found to cause serious developmental effects in animals or humans. For example, children are more sensitive than adults to the neurotoxic effects of lead, suffering neurobehavioral deficits such as loss of IQ at relatively low exposures. Chlorinated dibenzodioxins and furans are now understood to be potent developmental toxins, disrupting a wide variety of developmental events in embryos of numerous vertebrate species at exposures that are not toxic to adults. Although this rule is based on emission reduction technology rather than risk reduction per se, EPA anticipates that reductions in emissions of developmentally-toxic HAP will especially benefit children.

In addition to the HAPs, the proposed NESHAP also would reduce some of the pollutants whose emissions are controlled under the National Ambient Air Quality Standards (NAAQS) program. These pollutants include particulate matter (PM), volatile organic compounds (VOC—precursors to tropospheric ozone formation), and lead (also a HAP metal). The health effects of lead, PM, and VOC are described in EPA's Criteria Documents, which support the NAAQS. Briefly, PM emissions have been associated with aggravation of existing respiratory and cardiovascular disease and increased risk of premature death. At elevated levels, ozone has been shown in human laboratory and community studies to be responsible for the reduction of lung function, respiratory symptoms (e.g., cough, chest pain, throat and nose irritation), increased hospital admissions for respiratory causes, and increased lung inflammation. Animal studies have shown increased susceptibility to respiratory infection and lung structure changes. Exposure to ozone also has been linked to harmful effects on agricultural crops and forests. Depending on the degree of exposure, lead can cause subtle effects on behavior and cognition (particularly in children), increased blood pressure, reproductive effects, seizures, and even death.

The EPA recognizes that the degree of adverse effects to health can range from mild to severe. The extent and degree to which the health effects may be experienced is dependent upon: (1) The ambient concentrations observed in the area, (e.g., as influenced by emission rates, meteorological conditions, and terrain), (2) the frequency of and duration of exposures, (3) characteristics of exposed individuals (e.g., genetics, age, pre-existing health conditions, and lifestyle) which vary significantly with the population, and (4) pollutant-specific characteristics (e.g., toxicity, half-life in the environment, bioaccumulation, and persistence).

D. Secondary Aluminum Industry

At least 400 facilities which include one or more secondary aluminum affected sources currently operate in 36 States. Based on industry responses to EPA's information collection request (ICR) and responses to a voluntary supplemental industry/EPA survey, the 86 facilities identified as major sources operate at least 69 scrap shredders, 5 chip dryers, 44 scrap dryers/decoating kilns/delacquering kilns, 12 sweat furnaces, 15 dross-only furnaces, 86 secondary aluminum processing units, and 26 rotary dross coolers.

III. Summary of Proposed Standards

A. Applicability

The proposed NESHAP applies to each new, existing or reconstructed scrap shredder, chip dryer, scrap dryer/delacquering kiln/decoating kiln, group 2 furnace, sweat furnace, dross-only furnace, and rotary dross cooler; each secondary aluminum processing unit (composed of all existing group 1 furnace emission units and all existing in-line fluxer emission units); and each new or reconstructed group 1 furnace and in-line fluxer located at a secondary aluminum production plant that is a major source of HAP. The proposed NESHAP also applies to each new, existing or reconstructed chip dryer, scrap dryer/delacquering kiln/decoating kiln, and sweat furnace; each secondary aluminum processing unit and each new or reconstructed group 1 furnace and in-line fluxer located at a secondary aluminum production plant that is an area source of HAP. The proposed NESHAP also applies to these secondary aluminum production affected sources if they are collocated at a primary aluminum production facility that is a major source of HAP.

As discussed further in section IV of this document, the EPA categorized process furnaces into two classes. A group 1 furnace includes any furnace that processes aluminum scrap containing paint, lubricants, coatings, or other foreign materials or within which reactive fluxing is performed, regardless of the type of scrap charged. Reactive fluxing means the use of any gas, liquid, or solid flux (including chlorine gas or magnesium chloride) that results in a HAP emission.

Group 2 (''clean charge'') furnaces process only molten aluminum, T-bar, sow, ingot, alloying elements, noncoated runaround scrap, uncoated aluminum chips dried at 343°C (650°F) or higher, and aluminum scrap dried, decoated, or delacquered at a temperature at 482°C (900°F) or higher. A group 2 furnace performs no fluxing or performs fluxing using only nonreactive, nonHAP-containing/nonHAP-generating gases such as argon and nitrogen.

B. Emission Limits and Requirements

The proposed NESHAP for secondary aluminum production applies to major sources. In addition, affected sources located at area sources of HAPs, which emit D/F are regulated for emissions of D/F. The proposed limits are summarized in Table 1.

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TABLE 1. EMISSION STANDARDS FOR NEW AND EXISTING AFFECTED SOURCES.

Affected source	Pollutant	Limit	Units
All new and existing affected sources and emission units controlled with a PM add-on control device that choose to monitor with a COM and all new and existing scrap shredders that choose to monitor with a COM or visible emissions monitoring	Opacity	10	percent
New and existing scrap shredder	PM	0.01	gr/dscf
New and existing chip dryer	THC D/F[a]	0.80 2.50	lb/ton of feed µg/Mg of feed
New and existing scrap dryer/ delacquering/ 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/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 1,400°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/Mg of feed
New and existing sweat furnace	D/F[a]	0.80	ng/dscm @ 11% O_2
New and existing dross-only furnace	PM	0.30	lb/ton of feed
New or reconstructed in-line fluxer[b]	HCl PM	0.04 0.01	lb/ton of feed lb/ton of feed
Existing or new/ reconstructed in-line fluxer with no reactive fluxing	No limits		Work practice: no reactive fluxing
New or existing rotary dross cooler	PM	0.04	gr/dscf

Affected source	Pollutant	Limit	Units
New or existing clean furnace (Group 2)	No limits		Work Practices: Clean charge only and no reactive fluxing
New or reconstructed group 1 melter/holder furnace[b] (Processing only clean charge)	PM	0.80	lb/ton of feed
	HCl	0.40	lb/ton of feed
		or	
		90	percent reduction if equipped with add-on control device
New or reconstructed group 1 furnace[b]	PM	0.40	lb/ton of feed
	HCl	0.40	lb/ton of feed
		or	
		90	percent reduction (if equipped with add-on control device)
	D/F[a]	15.0	µg/Mg of feed
New or reconstructed group 1 furnace[b] with clean charge only	PM	0.40	lb/ton of feed
	HCl	0.40	lb/ton of feed
		Or	
		90	percent reduction (if equipped with add-on control device)
	D/F	No limit	Clean charge only

Affected source	Pollutant	Limit Units
Secondary aluminum processing unit[a,c] (consists of all existing group 1 furnaces and in-line flux boxes at the facility)	PM[d]	$L_{t_{PM}} = \frac{\sum_{i=1}^{n} (L_{i_{PM}} \times T_i)}{\sum_{i=1}^{n} (T_i)}$
	HCl[e]	$L_{t_{HCl}} = \frac{\sum_{i=1}^{n} (L_{i_{HCl}} \times T_i)}{\sum_{i=1}^{n} (T_i)}$
	D/F[f]	$L_{t_{D/F}} = \frac{\sum_{i=1}^{n} (L_{i_{D/F}} \times T_i)}{\sum_{i=1}^{n} (T_i)}$

FOOTNOTES TO TABLE 1

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

[b] These limits are also used to calculate the limits applicable to secondary aluminum processing units.

[c] 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 emission unit i [μg/Mg

(gr/ton) of feed]; $L_{tD/F}$ = the overall D/F emission limit for the secondary aluminum processing unit [μg/Mg (gr/ton) of feed]; n = the number of units in the secondary aluminum processing unit.

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

[e] In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the HCl limit.

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

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PM emission limits would apply to new, reconstructed and existing scrap shredders, scrap dryer/delacquering/decoating kilns, dross-only furnaces, rotary dross coolers; secondary aluminum processing units; and new and reconstructed in-line fluxers, and group 1 furnaces at secondary aluminum production facilities that are major sources. Controlling PM emissions would also control emissions of HAP metals. A surrogate approach to emission limits is used to allow easier and less expensive measurement and monitoring requirements.

The proposed rule limits total hydrocarbon emissions (THC) from new and existing chip dryers and from new and existing scrap dryer/delacquering/decoating kilns at secondary aluminum production facilities that are major sources. THC represents emissions of HAP organics. HCl emission limits would apply to new, reconstructed and existing scrap dryer/delacquering/decoating kilns; new and reconstructed in-line fluxers and Group 1 furnaces; and secondary aluminum processing units at secondary aluminum production facilities that are major sources. HCl serves as a surrogate measure of HAP inorganics including hydrogen fluoride (HF) and chlorine (Cl_2) emissions. The proposed rule limits emissions of D/F from new, reconstructed and existing chip dryers, scrap dryer/delacquering/decoating kilns and sweat furnaces; new and reconstructed group 1 furnaces; and secondary aluminum processing units at secondary aluminum production facilities that are major or area sources. No surrogate is used for D/F emissions. A detailed explanation of the proposed limits and the rationale for their selection is given in section IV.C. of this document.

C. Operating and Monitoring Requirements

The proposed NESHAP includes operating and monitoring requirements for each affected source and emission unit within a secondary aluminum processing unit to ensure continuous compliance with the emissions standards. The proposed standard would incorporate all requirements of the NESHAP general provisions (40 CFR part 63, subpart A). The proposed operating and monitoring requirements are summarized in Table 2. A detailed explanation of the monitoring requirements and the rationale for their selection is given in section IV.D. of this document. ½**Federal Register**

TABLE 2.—SUMMARY OF PROPOSED OPERATING AND MONITORING REQUIREMENTS FOR AFFECTED SOURCES AND EMISSION UNITS

Affected source/emission unit	Monitor type/operation/process	Operating requirements	Monitoring requirements
All affected sources and emission units	Labeling	Identification, emission limits and means of compliance posted on all affected sources and emission units.	Check monthly to confirm that labels are intact and legible.
All affected sources and emission units with add-on control device.	Emission capture and collection system.	Design and install in accordance with Industrial Ventilation: A Handbook of Recommended Practice; operate in accordance with O, M & M plan.[b]	Annual inspection of all emission capture, collection, and transport systems to ensure that systems continue to operate in accordance with ACGIH standards.
All affected sources and emission units subject to production based [lb/ton of feed] emission limits[a].	Charge/feed weight	Operate a device or use an equivalent procedure to record the weight of each charge; operate in accordance with O, M, & M plan.	Record the weight of each charge; weight measurement device or other procedure accuracy of ±1 percent; calibration every 3 months.
Scrap shredder with fabric filter	Bag leak detector	Initiate corrective action within 1 hour of alarm and complete in accordance with O, M, & M plan;[b] operate such that alarm does not sound more than 5% of operating time in 6-month period.	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance" and record voltage output from bag leak detector.

TABLE 2.—SUMMARY OF PROPOSED OPERATING AND MONITORING REQUIREMENTS FOR AFFECTED SOURCES AND EMISSION UNITS—Continued

Affected source/emission unit	Monitor type/operation/process	Operating requirements	Monitoring requirements
	or		
	COM	Initiate corrective action within 1-hour of a 6-minute average opacity reading of 5% or more and complete in accordance with O, M, & M plan; [b].	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR 63; calculate and record 6-minute block averages.
	or		
	VE	Initiate corrective action within 1 hour of any observed VE and complete in accordance with the O, M, & M plan.[b]	Conduct and record results of 30 minute daily test in accordance with Method 9.
Chip Dryer with afterburner	Afterburner operating temperature.	Maintain average temperature, averaged over each 3-hour period, at or above the average operating temperature during the performance test.	Continuous measurement device to meet EPA specifications; calculate and record average temperature for each 15-minute block; determine 3-hour block averages; calibrate every 3 months.
	Afterburner operation.	Operate in accordance with O, M, and M plan.[b]	Conduct annual inspection of afterburner internal parts to maintain good working order.
	Feed material	Operate using only unpainted aluminum chips.	Record identity of charge daily; certify charge materials every 6 months.
Scrap dryer/delacquering/decoating kiln with afterburner and lime injected fabric filter.	Afterburner operating temperature.	Maintain average temperature, averaged over each 3-hour period, at or above the average operating temperature during the performance test.	Continuous measurement device to meet EPA specifications; record temperatures in 15-minute block averages; calculate 3-hour block averages; calibration every 3 months.
	Afterburner operation.	Operate in accordance with O, M, & M plan.[b]	Annual inspection of afterburner internal parts; complete repairs in 10 days.
	Bag leak detector	Initiate corrective action within 1 hour of alarm and complete in accordance with the O, M, & M plan;[b] operate such that alarm does not sound more than 5% of operating time in 6-month period.	Install and operate in accordance with ''Fabric Filter Bag Leak Detection Guidance'' and record voltage output from bag leak detector.
	or		
	COM	Initiate corrective action within 1 hour of a 6-minute average opacity reading of 5% or more and complete in accordance with the O, M, & M plan.[b]	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR 63; calculate and record 6-minute block averages.
	Lime injection rate and schedule.	Maintain free-flowing lime in the feed hopper or silo at all times.	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.
		Maintain average lime injection rate (lb/hr) at or above the rate used during the successful compliance test and adhere to the same lime injection schedule used during the performance test for each 3-hour period or	Weight measurement device accuracy of ±1 percent; calibration every 3 months; record weight of lime injected for each 15-minute block period and determine 3-hour block averages or;
		Maintain average lime injection rate (lb/ton of feed) at or above the rate used during the performance test and adhere to the same lime injection schedule used during the performance test for each operating cycle or time period used in performance test or	Weight measurement device accuracy of ±1 percent; calibrate every 3 months; record weight of lime added or injected for each 15-minute block period and determine lime injection rate (lb/ton of feed) for each operating cycle or time period used in performance test or;
		Maintain feeder setting at level established at performance test.	Record feeder setting daily.

TABLE 2.—SUMMARY OF PROPOSED OPERATING AND MONITORING REQUIREMENTS FOR AFFECTED SOURCES AND EMISSION UNITS—Continued

Affected source/emission unit	Monitor type/operation/process	Operating requirements	Monitoring requirements
	Fabric filter inlet temperature.	Maintain average fabric filter inlet temperature at or below the average temperature during the successful compliance test +14 °C (25 °F) for each three hour period.	Continuous measurement device to meet EPA specifications; record temperatures in 15 minute block averages; calculate 3 hour block averages; calibration every three months.
Sweat furnace with afterburner	Afterburner operating temperature.	Maintain average temperature, averaged over each 3-hour period, at or above the average operating temperature during the performance test.	Continuous measurement device to meet EPA specifications; record temperatures in 15-minute block averages; calculate 3-hour block averages; calibration every 3 months.
	Afterburner operation.	Operate in accordance with O, M, & M plan.[b]	Annual inspection of afterburner internal parts; complete repairs in 10 days.
Dross-only furnace with fabric filter	Bag leak detector	Initiate corrective action within 1 hour of alarm and complete in accordance with the O, M, & M plan;[b] operate such that alarm does not sound more than 5% of operating time in 6-month period.	Installation and operation requirements in accordance with "Fabric Filter Bag Leak Detection Guidance" and record voltage output from bag leak detector.
	or		
	COM	Initiate corrective action within 1 hour of a 6-minute average opacity reading of 5% or more and complete in accordance with the O, M, & M plan.[b]	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR 63; calculate and record 6-minute block averages.
	Feed/charge material.	Operate using only dross as the feed material.	Record identity of each charge; certify charge materials every 6 months.
Rotary dross cooler with fabric filter	Bag leak detector	Initiate corrective action within 1 hour of alarm and complete in accordance with the O, M, & M plan;[b] operate such that alarm does not sound more than 5% of operating time in 6-month period.	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance" and record voltage output from bag leak detector.
	or		
	COM	Initiate corrective action within 1 hour of a 6-minute average opacity reading of 5% or more and complete in accordance with the O, M, & M plan.[b]	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR 63; calculate and record 6-minute block averages.
In-line fluxer with lime injected fabric filter (including those that are part of a secondary aluminum processing unit).	Bag leak detector	Initiate corrective action within 1 hour of alarm and complete in accordance with the O, M, & M plan;[b] operate such that alarm does not sound more than 5% of operating time in 6-month period.	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance" and record voltage output from bag leak detector.
	or		
	COM	Initiate corrective action within 1 hour of a 6-minute average opacity reading of 5% or more and complete in accordance with the O, M, & M plan.[b]	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR 63; calculate and record 6-minute block averages.
	Reactive flux injection rate and schedule.	Maintain the reactive flux injection rate at or below the reactive flux injection rate used during the performance test and adhere to the same flux injection schedule used during the test.	Weight measurement device accuracy of ±1 percent; calibration every 3 months; record weight and type of reactive flux added or injected for each 15-minute block period.
	Lime injection rate and schedule.	Maintain free-flowing lime in the feed hopper or silo at all times.	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.

TABLE 2.—SUMMARY OF PROPOSED OPERATING AND MONITORING REQUIREMENTS FOR AFFECTED SOURCES AND EMISSION UNITS—Continued

Affected source/emission unit	Monitor type/operation/process	Operating requirements	Monitoring requirements
In-line fluxer with lime injected fabric filter (including those that are part of a secondary aluminum processing unit) cont'd		Maintain average lime injection rate (lb/hr) at or above the rate used during the performance test and adhere to the same lime injection schedule used during the test for each 3-hour period or.	Weight measurement device accuracy of ±1 percent; calibrate every 3 months; record weight of lime injected for each 15-minute block period and determine 3 hour block averages or;
		Maintain average lime injection rate (1b/ton of feed) at or above the rate used during the performance test and adhere to the same lime injection schedule used during the test for each operating cycle or time period used in performance test or.	Weight measurement device accuracy of ±1 percent; calibrate every 3 months; record weight of lime injected for each 15-minute block period and determine lime injection rate (lb/ton of feed) for each operating cycle or time period used in performance test or;
		Maintain feeder setting at level established at performance test.	Record feeder setting daily.
	Fabric filter inlet temperature.	Maintain average fabric filter inlet temperature at or below the average temperature during the performance test +14 °C (25°F) for each 3-hour period.	Continuous measurement device to meet EPA specifications; record temperatures in 15-minute block averages; calculate 3-hour block averages; calibrate every 3 months.
Clean (group 2) furnace	Charge materials	Use only clean charge	Record identity of all charge materials; certify every 6 months.
	Flux materials	Use no reactive flux	Record identity of all flux materials; certify every 6 months that no reactive flux was used.
Group 1 furnace with lime injected fabric filter (including those that are part of a secondary aluminum processing unit).	Bag leak detector	Initiate corrective action within 1 hour of alarm and complete in accordance with the O, M, & M plan;[b] operate such that alarm does not sound more than 5% of operating time in 6-month period.	Install and operate in accordance with ''Fabric Filter Bag Leak Detection Guidance'' and record voltage output from bag leak detector.
	or		
	COM	Initiate corrective action within 1 hour of a 6-minute average opacity reading of 5% or more and complete in accordance with the O, M, & M plan.[b]	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR 63; calculate and record 6-minute block averages.
	Lime injection rate and schedule.	Maintain free-flowing lime in the feed hopper or silo at all times.	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.
		Maintain average lime injection rate (lb/hr) at or above the rate used during the performance test and adhere to the same lime injection schedule used during the test for each 3-hour period or;	Weight measurement device accuracy of±1 percent; calibrate every 3 months; record weight of lime injected for each 15-minute block period and determine 3-hour block averages.
		Maintain average lime injection rate (lb/ton of feed) at or above the rate used during the performance test and adhere to the same lime injection schedule used during the test for each operating cycle or time period used in performance test or;	Weight measurement device accuracy of ±1 percent; calibrate every 3 months; record weight of lime injected for each 15-minute block period and determine lime injection rate (lb/ton of feed) for each operating cycle or time period used in performance test or;
		Maintain feeder setting at level established at performance test.	Record feeder setting daily.
	Reactive flux injection rate and schedule.	Maintain the reactive flux injection rate at or below the reactive flux injection rate used during the performance test.	Weight measurement device accuracy of ±1 percent; calibrate every 3 months; record weight and type of reactive flux added or injected for each 15-minute block period.

TABLE 2.—SUMMARY OF PROPOSED OPERATING AND MONITORING REQUIREMENTS FOR AFFECTED SOURCES AND EMISSION UNITS—Continued

Affected source/emission unit	Monitor type/operation/process	Operating requirements	Monitoring requirements
	Fabric filter inlet temperature.	Maintain average fabric filter inlet temperature at or below the average temperature during the performance test +14 °C (25 °F) for each 3 hour period.	Continuous measurement device to meet EPA specifications; record temperature in 15-minute block averages; calculate 3-hour block averages; calibrate every 3 months.
	Maintain molten aluminum level.	Operate side-well furnaces such that the level of molten metal is above the top of the passage between side well and hearth during reactive flux injection.	Maintain aluminum level operating log; certify every 6 months.
	Fluxing in sidewell furnace hearth.	Add reactive flux only to the sidewell of the furnace unless the hearth is also controlled.	Maintain flux addition operating log; certify every 6 months.
Group 1 furnace without add-on controls (including those that are part of a secondary aluminum processing unit).	Reactive flux injection rate and schedule.	Maintain the reactive flux injection rate at or below the reactive flux injection rate used during the performance test and adhere to same flux injection schedule used in performance test.	Weight measurement device accuracy of ±1 percent; calibrate every 3 months; record weight and type of reactive flux added or injected for each 15-minute block period.
	Feed material (melter/holder).	....	Record identity of each charge; certify charge materials every 6 months.
	Site-specific monitoring plan (approved by permitting agency).	Operate furnace within the range of charge materials, contaminant levels, and parameter values established in the site-specific monitoring plan.[c]	Demonstration of site-specific monitoring plan to provide data and show correlation of emissions across the range of charge and flux materials and furnace operating parameters.

[a] Chip dryers, scrap dryers/delacquering kilns/decoating kilns, dross-only furnaces, in-line fluxers (including those that are part of a secondary aluminum processing unit) and group 1 furnaces including melter holders (including those that are part of a secondary aluminum processing unit).

[b] O, M, & M plan—Operation, maintenance, and monitoring plan.

[c] Site-specific monitoring plan—Owner/operators of group 1 furnaces without control devices must develop a site-specific monitoring plan that identifies process or feed parameter-based operating requirements. This plan would be part of the O, M, & M plan. This plan and the testing to demonstrate adequacy of the monitoring plan and correlation of parameters over the range of charge materials and fluxing practices must be developed in coordination with and be approved by the permitting authority.

IV. Selection of Proposed Standards

A. Selection of Source Category

Section 112(c) of the Act directs the EPA to list each category of major and area sources, as appropriate, emitting one or more of the HAPs listed in section 112(b) of the Act. The EPA published an initial list of source categories on July 16, 1992 (57 FR 31576), and may amend the list at any time. ''Secondary Aluminum Production'' is one of the 174 categories of sources included on the revised list of source categories (63 FR 7155, February 12, 1998). This list includes major and area sources of HAPs for which the EPA intends to issue regulations between November 1992 and November 2000. The category as defined in the EPA report, ''Documentation for Developing the Initial Source Category List'' (docket item II–A–6) for the listing includes any facility engaged in the cleaning, melting, refining, alloying, and pouring of aluminum recovered from scrap, foundry returns, and dross.

The listing of the secondary aluminum production major source category was based on the Administrator's determination that some secondary aluminum production facilities would be major sources of HAPs. These facilities are known to emit HAPs, including PM metal HAP (including antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, and nickel), gaseous organic HAPs (including dioxins, furans, polycyclic organic matter, benzene and formaldehyde) and gaseous inorganic HAPs (including hydrogen chloride, hydrogen fluoride, and chlorine).

A major source must have the potential to emit 9.1 Mg/yr (10 tpy) or more of a single HAP or 23 Mg/yr (25 tpy) or more of a combination of HAPs. The EPA has estimated that there are approximately 86 major source facilities that practice one or more secondary aluminum production processes.

Section 112(c)(6) of the Act states that by November 15, 2000, EPA must list and promulgate section 112(d)(2) or (d)(4) standards (i.e., standards reflecting MACT) for categories (and subcategories) of sources emitting seven specific pollutants, including 2,3,7,8 tetrachlorodibenzofurans and 2,3,7,8 tetrachlorodibenzo-p-dioxin which are emitted by secondary aluminum production affected sources. The EPA must assure that source categories accounting for not less than 90 percent of the aggregated emissions of the enumerated pollutant are subject to MACT standards. Congress (docket item II–I–13, p. 155 to 156 (cement) singled out the HAPs enumerated in section 112(c)(6) as being of ''specific concern'' not just because of their toxicity but because of their propensity to cause substantial harm to human health and the environment via indirect exposure pathways (i.e., from the air through other media, such as water, soil, food uptake, etc.). Furthermore, these pollutants have exhibited special potential to bioaccumulate, causing pervasive environmental harm in biota (and, ultimately, human health risks).

The EPA estimates that secondary aluminum production facilities emit in aggregate approximately 0.4 lb per year of D/F (from June 20, 1997; 62 FR 33635), or 3.5 percent (from April 10, 1998; 63 FR 17849), of the total national anthropogenic emissions of D/F per year (docket item II–J–2, docket item II–J–4). To assure that this pollutant is subject to MACT, EPA has added the secondary aluminum production area source category to the list of source categories and subcategories listed pursuant to section 112(c)(6). (See 63 FR 17838, 17849; April 10, 1998.) The EPA has done so because area and major source secondary aluminum D/F emitting processes emit this HAP at about equal rates per ton of feed, because the D/F emitted by area sources are equally toxic per amount of emissions as that emitted by major sources (i.e., the distribution of dioxin and furan isomers is the same for both area and major sources), and because this is a particularly toxic class of HAP. In addition, EPA's strategy for assuring 90 percent of these pollutants are addressed includes control of these pollutants from secondary aluminum production facility area sources through the MACT process. (See 62 FR 33635, 33636; June 20, 1997.)

The EPA notes, however, as it did in the April 10th document, that although the section 112(c)(6) listing process makes sources subject to standards under subsection (d)(2) or (d)(4), the language of section 112(c)(6) does not specify either a particular degree of emissions control or a reduction in emissions of these specific pollutants to be achieved by such regulations. Rather, the specific control requirements will result from determining the appropriate level of control under MACT (section 112(d)(2), or section 112(d)(4)), and this interpretation will be made during the section 112(d) rulemakings affecting the particular source category, not as part of the section 112(c)(6) listing process. (See 63 FR 17841; April 10, 1998.)

As noted above, EPA is interpreting section 112(c)(6) to require the EPA to establish standards under section 112(d)(2) or 112(d)(4) for all sources listed pursuant to section 112(c)(6), whether such sources are major or area sources. This interpretation reflects the express language of section 112(c)(6) that sources * * * of each such pollutant are subject to standards under subsection (d)(2) or (d)(4) and is in accord with the function of section 112(c)(6):

> * * * to assure that sources emitting significant amounts of the most dangerous HAPs are subject to the rigorous MACT standard-setting process.

(See S. Rep. No. 228, 101st Cong. 1st Sess., pp. 155, 166.)

In addition, the EPA is interpreting section 112(c)(6) to require that, for sources listed under section 112(c)(6), MACT (or section 112(d)(4)) controls apply only to the section 112(c)(6) HAPs emitted by the source. Thus, in this proposed rule, secondary aluminum production area sources would be subject only to the D/F emission limitations of the MACT standards. (Since the language of section 112(c)(6) is ambiguous as to whether the entire source must comply with MACT, or just for the HAPs enumerated in section 112(c)(6), (see 61 FR 17365, n. 12), either interpretation is legally permissible.) Applying the provision to the entire source could result in applying MACT to all HAPs emitted by area sources under circumstances where control would not otherwise be warranted. The EPA specifically requests comments and data regarding the decision to include area sources of D/F in this proposed rule. The Agency seeks information and data regarding the level of emissions from area sources, the degree to which controls are in place, and the burden that would be imposed on affected sources.

B. Selection of Emission Sources and Pollutants

The secondary aluminum production source category 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. The affected sources for which MACT standards are being proposed include new, reconstructed and existing scrap shredders, chip dryers, scrap dryers/delacquering/decoating kilns, group 2 furnaces, sweat furnaces and dross coolers; secondary aluminum processing units (composed of all existing group 1 furnace emission units and all existing in-line fluxer emission units); and new and reconstructed group 1 furnaces and in-line fluxers. Each of these affected sources emits one or more of the HAPs listed in section 112 of the Act.

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. Emissions of PM and HAP metals are generated as dust from coatings and other contaminants contained in the scrap aluminum. A typical shredder with a capacity of 90,900 Mg/yr (100,000 tpy), is estimated to produce 190 Mg/yr (212 tpy) of PM, before controls (See docket item II–B–16, impacts memo). PM emitted from shredders contains HAP metals.

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 with a typical capacity of 36,400 Mg/yr (40,000 tons/yr), is estimated to emit 2.4 g TEQ/yr (.0053 lb/yr) of D/F, and 385 Mg/yr (424 tpy) of THC (of which some fraction is organic HAP) (See docket item II–B–16, impacts memo).

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 HAPs, 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 with a typical capacity of 45,500 Mg/yr (50,000 tpy) is estimated to emit 43.3 Mg/yr (47.7 tpy) PM (of which some fraction is particulate metal HAP), 76.0 Mg/yr (83.6 tpy) HCl, 68 Mg/yr (75 tpy) THC (of which some fraction is organic HAP), and 3.5 g TEQ/yr (0.0077 lb TEQ/yr) of D/F (See docket item II–B–16, impacts memo).

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, with a typical capacity of 4,500 Mg/yr (5,000 tpy) is estimated to emit 0.071 g TEQ/yr (0.00016 lb TEQ/yr) of D/F (See docket item II–B–16, impacts memo).

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 large sources of HAP emissions in the secondary aluminum industry. An uncontrolled melting furnace with a typical capacity of 18,100 Mg/year (20,000 tpy) which processes contaminated scrap and uses reactive fluxes is estimated to emit 177 Mg/yr (195 tpy) of PM (of which approximately 0.80 Mg/yr [0.88 tpy] is particulate metal HAP), 29.7 Mg/yr (32.6 tpy) of HCl, and 8 g TEQ/yr (0.018 lb TEQ/yr) D/F (See docket item II–B–16, impacts memo).

As described in section IV.C.1 of this document, process furnaces have been divided into group 1 (unrestricted scrap content, unrestricted fluxing) and group 2 (clean charge, no reactive flux). Existing group 1 furnaces are emission units within the secondary aluminum processing unit affected source.

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 with a typical capacity of 18,200 Mg/yr (20,000 tpy) is estimated to emit 113 Mg/yr (125 tpy) of PM (of which some fraction is particulate metal HAP (See docket item II-B–16, impacts memo).

Rotary dross coolers are devices used to cool dross in a rotating, water-cooled drum. A rotary dross cooler without controls with a typical capacity of 9,090 Mg/yr (10,000 tpy) is expected to emit 15.4 Mg/yr (17.0 tpy) of PM (of which some fraction is particulate metal HAP) (See docket item II-B–16, impacts memo, docket item II-B–15, Peters Risk Memo 3/27/97).

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, of typical capacity of 45,500 Mg/yr (50,000 tpy) is estimated to emit 60.8 Mg/yr (66.8 tpy) of HCl and 1.9 Mg/yr (2.1 tpy) of PM (see docket item II-B–16, impacts memo). Existing in-line fluxers are emission units within the secondary aluminum processing unit affected source.

Given that these processes release significant quantities of HAPs and the availability of emission control systems, the EPA selected to develop and propose NESHAP for the following emission sources: New, reconstructed and existing scrap shredders, chip dryers, scrap dryer/delacquering/decoating kilns, sweat furnaces, dross-only furnaces, rotary dross coolers, and group 2 (clean charge, no reactive flux) furnaces; new and reconstructed group 1 furnaces and in-line fluxers; and secondary aluminum processing units (composed of existing group 1 furnaces and in-line fluxers).

The proposed standards would limit emissions of metal HAPs, organic HAPs (including D/F), and HCl from secondary aluminum production facilities. (Pollutant health effects were discussed in section II.C. of this document). As described above, these HAPs are emitted in significant quantities from secondary aluminum production sources.

C. Selection of Proposed Standards for Existing and New Sources

1. Background

After the EPA has identified the specific source categories or subcategories of major sources to regulate under section 112, MACT standards must be set for each category or subcategory. Section 112 establishes a minimum baseline or ''floor'' for standards. For new sources, the standards for a source category or subcategory cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source. (See section 112(d)(3).) The standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources for categories and subcategories with 30 or more sources, or the average or median of the best-performing five sources for categories or subcategories with fewer than 30 sources.

After the floor has been determined for a new or existing source in a source category or subcategory, the Administrator must set MACT standards that are no less stringent than the floor. Such standards must then be met by all sources within the category or subcategory. In establishing the standards, the EPA may distinguish among classes, types, and sizes of sources within a category or subcategory. (See section 112(d)(1).)

The next step in establishing MACT standards is to investigate regulatory alternatives. With MACT standards, only alternatives at least as stringent as the floor may be selected. Information about the industry is analyzed to develop model plants for projecting national impacts, including HAP emission reduction levels and cost, energy, and secondary impacts. Regulatory alternatives (which may be different levels of emissions control, equal to or more stringent than the floor levels) are then evaluated to select the regulatory alternative that best reflects the appropriate MACT level. The selected alternative may be more stringent than the MACT floor, but the control level selected must be technologically achievable. The regulatory alternatives and emission limits selected for new and existing sources may be different because of different MACT floors.

The Agency may consider going beyond the floor to require more stringent controls. Here, the EPA considers the achievable emission reductions of HAPs (and possibly other pollutants that are co-controlled) and the cost impacts.

Subcategorization within a source category may be considered when there is enough evidence to demonstrate clearly that there are significant differences among the subcategories. The criteria to consider include process operations (including differences between batch and continuous operations), emission characteristics, control device applicability, safety, and opportunities for pollution prevention.

The EPA examined the processes, the process operations, and other factors to determine if separate classes of units, operations, or other criteria have an effect on air emissions from emission sources, or the controllability of those emissions. Based on differences in emissions, the type of materials processed and the fluxing practices employed, the EPA has distinguished two specific classes of melting, holding, and refining furnaces. Because HAP emission potential is strongly influenced by the contaminants present in the materials that are melted and the type and amount of flux added, these furnaces would be subject to separate standards under the proposed rule.

The classes of process furnaces which are characterized by the types of scrap charged to the furnace and the operations carried out in the furnace are: (1) Group 1 (all process furnaces except group 2) furnaces and (2) group 2 (''clean charge/no reactive flux'') furnaces.

Dross-only furnaces and sweat furnaces are distinctly different from the other types because they each specialize in recovering aluminum from a particular type of raw material. As the name implies, ''dross-only'' furnaces charge only dross collected from other furnace operations. Sweat furnaces recover aluminum from materials with a high iron (or other ferrous material) content. Both of these furnaces are unique in their method of operation and are treated as separate sources in development of the proposed NESHAP.

2. Selection of MACT Floor Technology

In establishing these proposed emission standards, the technology representative of the MACT floor level of control was determined for each affected source. Add-on control technologies were considered as well as work practices and pollution prevention techniques. Data related to operating procedures and emissions for secondary aluminum plants were obtained through a combination of site visits, an ICR, an EPA/industry voluntary follow-up questionnaire, and emissions tests.

Emission tests were conducted at 12 facilities to measure uncontrolled and controlled emissions from selected production processes and to evaluate the effectiveness of the technology representative of the MACT floor level of control. Sites for these tests were selected jointly by the EPA and industry as operating technology representative of the MACT floor level of control. Funding for tests was provided by the EPA, The Aluminum Association, and individual facilities. The EPA also met frequently with industry representatives to discuss the test program and available data, and to identify and resolve issues. In addition to the data from the emission testing program, the Agency also used emissions data from the ICR database (docket item II–D–105, ICR database). Data from all these sources were considered in the selection of emission limits for individual emission points at secondary aluminum plants. Additional details on the emission test data can be found in the docket. (See Docket Item II–B–17. Memorandum. M. Wright, Research Triangle Institute, to J. Santiago, EPA:MICG. Summary of Emissions Data. 1998.)

One important aspect of the more effective control technologies is the system that captures and collects the HAPs generated by each of the processes. Well-designed hoods and their proper placement, adequate air flows or ventilation rates, and adequately sized ductwork and fans, in well-maintained systems are representative of the MACT floor technology control systems. These well-designed capture and collection systems can be achieved by following the design standards in the American Conference of Governmental Industrial Hygienists (ACGIH) ''Industrial Ventilation: A Manual of Recommended Practice.'' The standards described in Chapters 3 and 5 of this manual are incorporated by reference in the rule as a requirement applicable to affected sources equipped with add-on control devices.

Scrap shredders. Based on information provided in the ICR responses, the EPA identified 69 shredding and crushing operations at 51 facilities. Emissions test measurements show that shredders and crushers are sources of PM (containing particulate metal HAP). Fabric filters are used to control emissions at 49 of the 69 shredders and crushers in the industry. The best performing 12 percent of the existing 69 scrap shredders and crushers are equipped with a fabric filter for controlling PM and HAP metals. Therefore, the floor level of control for existing sources is determined by the average/median of the best performing 8 sources within the category. This median level of control is represented by a well designed and operated pulse-jet fabric filter using fiberglass bags with an air to cloth ratio of about 6.0.

This same level of control is also the MACT floor for new sources since it is also the level of control achieved by the best controlled source.

Chip dryers. The EPA identified five chip dryers based on information provided in the ICR responses. Emissions test measurements show that these sources emit THC (containing organic HAP) and D/F. Four of these five dryers are equipped with an afterburner. The MACT floor, for categories of less than 30 sources is determined by the median of the five best controlled sources in the category. The best performing 4 of the existing 5 chip dryers are equipped with an afterburner for organics (i.e., THC and D/F) control. Therefore, the floor level of control for existing sources is determined by the median of the best performing 5 sources within the category. This median level of control is represented by a well designed and operated afterburner with a minimum of 1-second residence time and operated at a temperature of 1,200°F.

The same level of control which represents the existing source MACT is also the MACT floor for new sources since it is also the level of control achieved by the best controlled source.

Scrap dryers/delacquering kilns/decoating kilns. Based on information provided in the ICR responses, the EPA identified 46 scrap dryers, delacquering kilns, and decoating kilns. Emissions test measurements show that these sources emit PM (containing particulate metal HAP), HCl, THC (containing organic HAP) and D/F.

Afterburners followed by a lime injected fabric filter system are used to control emissions at 13 of the 46 scrap dryers/delacquering kilns/decoating kilns in the industry. The best performing 12 percent of the existing 46 scrap dryers/delacquering kilns/decoating kilns are equipped with an afterburner for organics (i.e., THC and D/F) control and a lime injected fabric filter for controlling HCl, D/F, PM and HAP metals. Therefore, the floor level of control for existing sources is determined by the average/median of the best performing 6 sources within the category. This median level of control is represented by a well designed and operated afterburner with a minimum of 1-second residence time and operated at a temperature of 1400°F followed by a pulse-jet fabric filter using fiberglass bags with an air to cloth ratio of about 4.0 and continuous lime injection.

The existing source MACT is also the MACT floor for new sources since it is also the level of control achieved by the best controlled source.

Sweat furnaces. Based on data provided in the ICR responses, the EPA identified 12 sweat furnaces in the industry. These sources reclaim aluminum from scrap containing high levels of iron by heating the scrap to a temperature above the melting point of aluminum but below that of iron. Emissions test measurements show that these sources emit THC and D/F. Six of the 12 sweat furnaces are equipped with afterburners to control THC and D/F. The MACT floor, for categories of less than 30 sources is determined by the median of the five best controlled sources in the category. Therefore, afterburners represent the MACT floor level of control for existing sweat furnaces. An afterburner representative of this median level of control is designed for a minimum of 1-second residence time and operated at a temperature of 1600°F.

The existing source MACT is also the MACT floor for new sources since it is also the level of control achieved by the best controlled source.

Group 1 furnaces. Existing group 1 furnaces are emission units within a secondary aluminum processing unit affected source. Each new and reconstructed group 1 furnaces is a separate affected source. The EPA identified 528 Group 1 furnaces based on information provided in the ICR responses. Approximately one-half of these furnaces operate with no add-on air pollution control devices. Emissions test measurements show that these sources emit PM (containing particulate metal HAP), HCl, and D/F. The add-on controls used on group 1 furnaces include fabric filters, lime coated fabric filters, lime injected fabric filters, cyclones, incinerators and wet scrubbers.

Other furnaces in group 1 limit emissions through the use of work practices, design practices, and pollution prevention approaches. These techniques include, but are not limited to, charging only clean scrap to the furnaces and design and work practice approaches for fluxing, limiting oil and coatings content of furnace charges through the use of scrap purchasing specifications and scrap inspection, fluxing only in holding furnaces, fluxing in in-line fluxers, and limiting the use of reactive fluxes. Work practices and pollution prevention approaches may also be combined with add-on controls to achieve HAP reductions.

Lime injected fabric filter systems are used to control emissions at 68 of the 528 group 1 furnaces in the industry. The best performing 12 percent of the existing 528 group 1 furnaces are equipped with a lime injected fabric filter for controlling HCl, PM and HAP metals, and for controlling D/F from those furnaces which process scrap containing oil and coatings. Therefore, the floor level of control achievable by existing emission units is determined by the average/median of the best performing 63 sources within the category. This median level of control is represented by a well designed and operated pulse jet fabric filter with an air to cloth ratio of about 6.5 and continuous lime injection.

The level of control achievable by existing emission units represents the MACT floor for new sources since it is also the level of control achieved by the best controlled source.

Group 2 furnaces. Based on the ICR data, the EPA estimates that about 75 group 2 furnaces are currently in operation. None of the furnaces in group 2 are equipped with add-on air pollution control devices. Emissions from these furnaces are typically controlled by work practices that require charging only clean charge materials, coupled with fluxing operations using only non-reactive agents (i.e. fluxes which do not contain or produce HAPs). Since emissions from these units are at very low levels and considering the cost of emissions testing, the application of emission measurement methodology and setting specific emissions limits for this particular class of source is not practicable due to economic limitations. Thus, work practice procedures under section 112(h) of the Act (limitations on type of charge and type of flux used) constitute the MACT floor level of control for existing Group 2 furnaces as well as MACT for new group 2 furnaces.

Dross-only furnaces. Based on the information reported in the ICR, the EPA identified 15 dross-only furnaces. Emissions test measurements show that these sources emit PM (containing particulate metal HAP). All dross-only furnaces are equipped with control systems that include a fabric filter, some of which have lime injection systems. The MACT floor, for categories of less than 30 sources is determined by the median of the five best controlled sources in the category. The ICR data show that the control technology in place at the five best-controlled sources is a lime injected fabric filter. Therefore, lime injected fabric filters represent the MACT floor level of control for existing dross-only furnaces. The technology at the median level of control is represented by a well designed and operated fabric filter with polyester bags at an air to cloth ratio of 6.5 to 1 with continuous lime injection.

The existing source MACT floor is also the MACT floor for new sources since it is also the level of control achieved by the best controlled source.

Rotary dross coolers. The EPA identified 26 rotary dross coolers based on the information provided in the ICR responses. Emissions test measurements show that these sources emit PM (containing particulate metal HAP). All 26 rotary coolers are equipped with fabric filters. The MACT floor, for categories of less than 30 sources is determined by the median of the five best controlled sources in the category. Therefore, fabric filters represent the MACT floor level of control for existing rotary dross coolers. A fabric filter representative of the median of the best 5 controlled sources is a well designed and operated pulse-jet fabric filter system using polyester bags with an air to cloth ratio of 3.0.

The existing source MACT floor is also the MACT floor for new sources since it is also the level of control achieved by the best controlled source.

In-line fluxers. Existing in-line fluxers are emission units within a secondary aluminum processing unit affected source. Each new and reconstructed in-line fluxer is a separate affected source. The EPA identified a total of 120 in-line fluxers (also referred to as degassing boxes) from the information reported in the ICR responses. Emissions test measurements show that in-line fluxers are sources of low concentrations of PM (containing particulate metal HAP) and HCl. Eleven in-line fluxers are controlled by fabric filters and 7 of these have lime (or other alkaline reagent) injection systems. The average of the best performing 12 percent of the existing 120 in-line fluxers is represented by a lime injected fabric filter for controlling HCl, PM and HAP metals. The level of control achievable by existing emission units is represented by a well designed and operated pulse-jet fabric filter using fiberglass bags with an air to cloth ratio of about 7.0 and continuous lime injection.

The level of control achievable by existing emission units represents the MACT floor for new sources since it is also the level of control achieved by the best controlled emission unit.

Secondary aluminum processing units. A secondary aluminum processing unit consists of all of the existing group 1 furnace emission units and all of the existing in-line fluxer emission units at a secondary aluminum production facility. The MACT floor level of control is determined by applying the level of control achievable to each emission unit within the affected source. As described in the paragraphs in this section of the document which address the determination of the MACT floor for group 1 furnaces and in-line fluxers, this is represented by the level of control achieved by a lime injected fabric filter of appropriate design, coupled with continuous lime injection. Each new or reconstructed group 1 furnace or in-line fluxer is a separate affected source subject to the MACT floor emission limitations as described in the paragraphs in this section of the document which address the determination of the MACT floor for group 1 furnaces and in-line fluxers.

3. Consideration of Beyond-the-Floor Technologies

The EPA investigated beyond-the-floor controls for each pollutant and affected source regulated by the proposed rule. For each of the cases evaluated, the Agency did not identify cost-effective emission control technologies that would accomplish additional emission reductions to a level below that achieved by the MACT floor technology. Therefore, the Agency is proposing emission limits at the MACT floor level of control.

4. Selection of Emission Limits

The EPA and industry conducted comprehensive emission tests at 12 facilities to characterize uncontrolled and controlled emissions from the various processes and to evaluate the effectiveness of existing control devices and work practice and pollution prevention approaches. Sites with add-on control technologies selected for emission testing represented the use of technology identified by the EPA as the MACT floor technology. Other sites were tested where work practice and pollution prevention approaches were used to achieve HAP emission reductions. Data from these sites showed that work practices and pollution prevention approaches could achieve HAP emission levels similar to those achieved with add-on MACT floor technologies. Therefore, the EPA is proposing a combination of work practice/pollution prevention based standards and MACT floor control technology based numerical emission limits for control of HAP from affected sources subject to the proposed rule.

The EPA is, in most cases, proposing emission limits in a mass per unit (e.g., kg/Mg or lb/ton) of feed format. This format provides several advantages. For example, for process units that release emissions from more than one stack and where multiple similar affected sources are controlled by a common control device, total emission rates can be determined by measuring emissions for a particular pollutant from each stack or discharge point, e.g. lbs/hr, adding those, and dividing by the sum of all affected source feed rates, e.g. tons/hr. In addition, this format is tied to production and the emission limits are unaffected by dilution. In specific cases, concentration based numerical emission limits, or minimum percentage reduction standards are appropriate; the format of these standards is explained in the discussion of these emission standards.

All limits on particulate metal HAP emissions are expressed in terms of a surrogate pollutant, PM. The use of the surrogate PM emissions limit will require the installation and operation of the appropriate MACT floor technology for metal HAPs control from new and existing sources. Use of PM as a surrogate for metal HAPs also has the advantage of simplifying and reducing the cost of performance testing and monitoring.

Except for D/F which merits special consideration due to high toxicity, all emission standards for gaseous organic HAPs are expressed in terms of a surrogate pollutant, THC. The use of a surrogate THC emissions limit for gaseous organic HAPs will require facilities to install and operate the appropriate MACT floor technology for gaseous organic HAPs from new and existing sources.

All limits on D/F emissions are expressed in units of toxic equivalent (TEQ). Toxic equivalent refers to the international method of expressing toxicity equivalents for dioxins and furans as defined in the EPA report, ‘‘Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 Update’’ (docket item II–A–1).

In addition to the emission limits discussed below, the EPA is also proposing a 10 percent opacity limit applicable to affected sources with fabric filter control devices that choose to monitor with a COM and affected scrap shredders that choose to monitor with a COM or by visible emissions monitoring. During the course of many emission tests conducted at secondary aluminum facilities, the EPA has determined that the exhaust gases from properly designed, operated, and maintained fabric filters have essentially zero opacity. An opacity of 10 percent or greater following a successful performance test on a fabric filter controlled affected source is a clear indication that the control device is not functioning properly.

Scrap shredders. The proposed PM limit for scrap shredders and crushers of 23 mg/dscm, (0.010 gr/dscf) is based on test results from four facilities equipped with well designed and operated fabric filters representative of the MACT floor technology for new and existing sources where PM measured emissions ranged from 0.0002 gr/dscf to 0.0069 gr/dscf. The EPA took into consideration the wide variation in controlled emissions for the four MACT floor fabric filter systems in selection of the emission limits of 23 mg/dscm (0.010 gr/dscf). Such a range in performance represents the typical variations associated with the process and with application of the floor technology. The proposed PM emission limit represents a level that can be achieved by all scrap shredders and crushers using the MACT floor technology. The supporting emissions data are presented in Figure 1 and Table 3 below.

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Shredder Operations - Emissions Data

PM (gr/dscf)

Plant	High	Low	Average
Plant 24	0.0033	0.0016	0.0022
Plant 25	0.0077	0.0063	0.0069
Plant 26	0.0003	0.0001	0.0002
Plant 27	0.0011	0.0006	0.0008

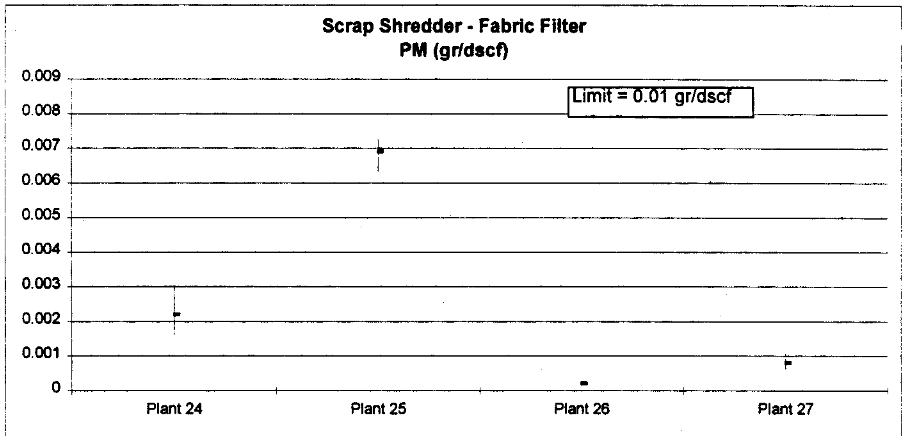

Figure 1. Scrap Shredder Emission Test Data

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TABLE 3.—SUMMARY OF SCRAP SHREDDERS AND CRUSHERS PARTICULATE EMISSIONS TEST DATA

Plant	Control device	Average PM emissions	
		PM (gr/dscf)	PM (mg/dscm)
24	Fabric Filter	0.0022	5.0
25	Fabric Filter	0.0069	15.8
26	Fabric Filter	0.0002	0.46
27	Fabric Filter	0.0008	1.8

For this affected source, a concentration format is appropriate because PM concentration is easily and reliably measured from these sources and PM concentration reflects fabric filter performance, the technology representative of MACT for new and existing sources.

The EPA is also proposing a 10 percent opacity limit applicable to fabric filters applied to scrap shredder waste gas streams if the owner or operator chooses to monitor either with a COM or by visible emissions monitoring. As noted above, the EPA has determined that the presence of a 10 percent or greater opacity discharge from a fabric filter following a successful performance test is a clear indication that the device is not functioning properly.

Chip dryers. One chip dryer with a well designed and operated afterburner representative of the MACT floor was tested. The controlled THC emissions from tests at this facility averaged 0.21 kg/Mg (0.42 lb/ton) of feed and the D/F emissions averaged 1.3 µ/Mg D/F TEQ (1.7 x 10^{-5} gr/ton) of feed. The data are shown in Figure 2 below.

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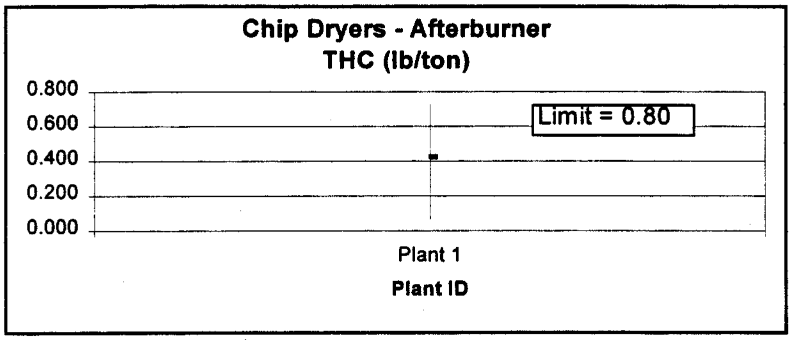
Chip Drying Operations - Emissions Data

THC (lb/ton)

Plant	High	Low	Average
Plant 1	0.730	0.062	0.424



D/F (μg/Mg)

Plant	High	Low	Average
Plant 1	2.293	0.745	1.330

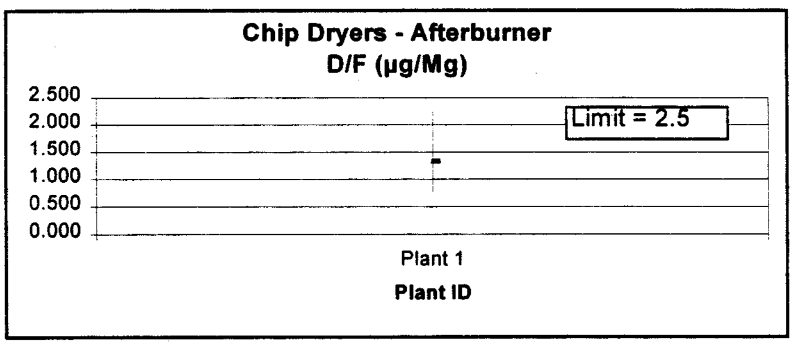


Figure 2. Chip Dryer Emissions Data

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Based on these data the EPA is proposing a THC limit of 0.40 kg/Mg (0.80 lb/ton) of feed and a D/F (TEQ) limit of 2.5 ''µg/Mg (3.5×10^{-5} gr/ton) of feed.

Scrap dryers/delacquering kilns/ decoating kilns.

The same process equipment can function as a scrap dryer, a delacquering kiln, or a decoating kiln. Equipment of an identical design is capable of performing different functions by changing the operating temperature and charge make-up. In addition, the control technology representative of MACT for new and existing sources is the same for kilns operating as scrap dryers and kilns operating as delacquering/decoating kilns. The EPA/industry task group spent considerable effort trying to define scrap dryers and delacquering/decoating kilns such that separate emission standards could be set for each. Despite this substantive effort, the task group was unable to develop consistent, unambiguous definitions which would permit the establishment of different classes of scrap dryers, delacquering kilns, or decoating kilns. In recognition of the different operating modes applicable to these affected sources such as operating temperatures, charge make-up, difference in uncontrolled emission levels; to provide operational flexibility; and to ensure that the technology representative of the MACT floor for new and existing sources is installed and properly operated at these sources, the EPA is proposing two alternate sets of emission standards.

One set of emission standards is based on emissions data obtained from a kiln operating as a delacquering/decoating kiln with an operating temperature about 1,000 °F and processing only coated materials, such as painted siding and used beverage containers, and operating a well designed afterburner/ lime injected fabric filter system representative of MACT for new and existing sources. This set of standards for PM, HCl, THC, and D/F is summarized in Table 4.

TABLE 4. SUMMARY OF EMISSION LIMITS FOR SCRAP DRYERS, DELACQUERING KILNS, AND DECOATING KILNS OPERATING AS DELACQUERING KILNS

Process	PM (lb/ton of feed)	HCl (lb/ton of feed)	THC (lb/ton of feed)	D/F (µg/Mg of feed)
Scrap Dryer, Delacquering Kiln, Decoating Kiln	0.080	0.80	0.060	0.25

The other set of emission standards is based on the emissions data obtained from a kiln that had an operating temperature of about 700°F and was processing scrap with oils, coatings, paints, insulation, etc. The control technology in use was an afterburner/ lime injected fabric filter system representative of MACT for new and existing sources. That set of standards and control device design and operating requirements is summarized in Table 5.

TABLE 5.—SUMMARY OF ALTERNATE EMISSION LIMITS AND CONTROL EQUIPMENT REQUIREMENTS FOR SCRAP DRYERS, DELACQUERING KILNS, AND DECOATING KILNS OPERATING AS SCRAP DRYERS

Process	PM (lb/ton of feed)	HCl (lb/ton of feed)	THC (lb/ton of feed)	D/F (µg/Mg of feed)	Afterburner design and operating requirements	
					Temperature (°F)	Residence time[a] (seconds)
Scrap Dryer, Delacquering Kiln, Decoating Kiln	0.30	1.50	0.20	5.0	1,400	1.0

[a] Afterburner design residence time.

The first set of proposed emission limits for scrap dryers, delacquering kilns, decoating kilns in Table 4 is supported by the delacquering emissions data summarized in Table 6 and Figure 3. Under this set of standards an operator is required to meet a more stringent set of emission limits, but the afterburner design parameters are not requirements.

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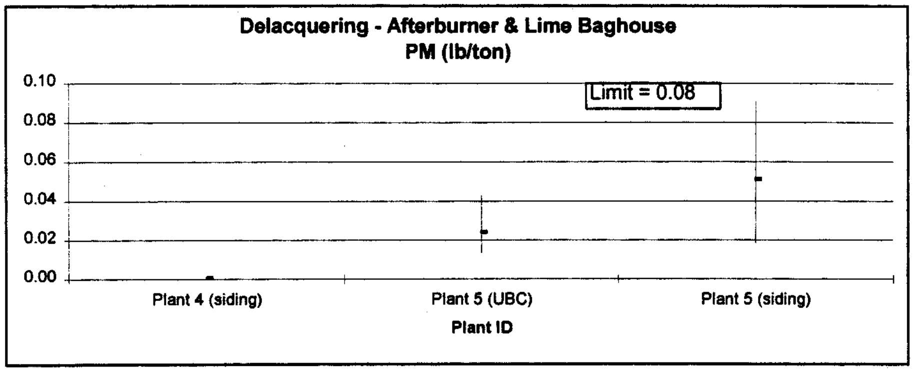
Delacquering Operations - Emissions Data

Particulate Matter (lb/ton)

Plant	High	Low	Average
Plant 4 (siding)	0.00069	0.00048	0.00057
Plant 5 (UBC)	0.04300	0.01300	0.02400
Plant 5 (siding)	0.09100	0.01800	0.05100



HCl (lb/ton

Plant	High	Low	Average
Plant 4 (siding) (91%)	1.045	0.075	0.544

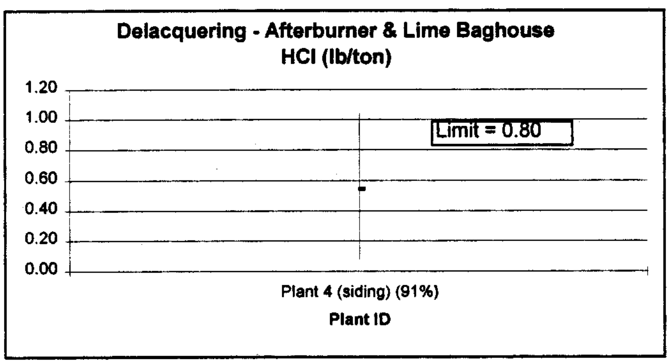
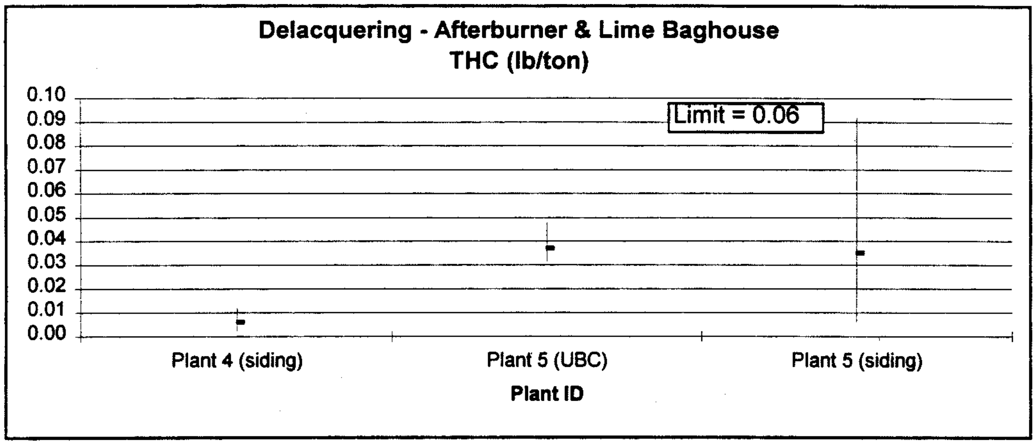


Figure 3. Scrap Delacquering Emissions Data

THC (lb/ton)

Plant	High	Low	Average
Plant 4 (siding)	0.01200	0.00200	0.00600
Plant 5 (UBC)	0.04800	0.03100	0.03700
Plant 5 (siding)	0.09200	0.00600	0.03500



D/F (µg/Mg)

Plant	High	Low	Average
Plant 4 (UBC)	0.14440	0.11685	0.13007

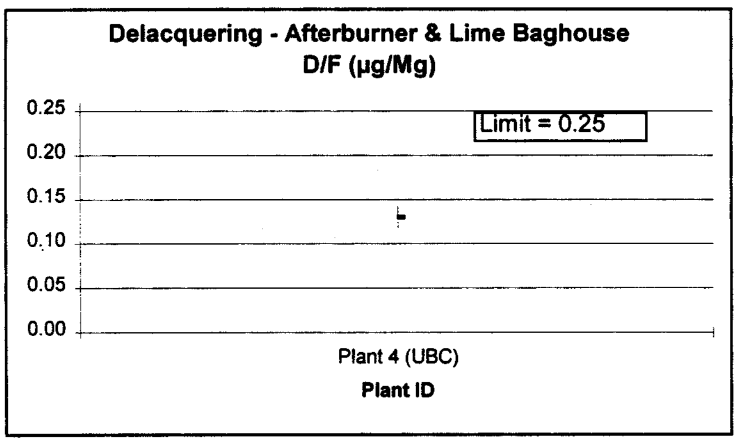


Figure 3 (continued). Scrap Delacquering Emissions Data

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TABLE 6.—SUMMARY OF SCRAP DRYER, DELACQUERING KILN, DECOATING KILN EMISSIONS DATA WITH MACT CONTROLS

Plant ID	PM (lb/ton of feed)	HCl (lb/ton of feed)	THC (lb/ton of feed)	D/F (µg/Mg of feed)
2—Scrap Dryer	0.167	0.827		
3—Scrap Dryer	0.214	1.26	[a] 0.072	[a] 2.66
4—Delacquering	[b] 0.00057	[b] 0.544	[b] 0.006	[b] 0.118
5—Delacquering	[c] 0.024		[c] 0.037	
	[d] 0.051		[d] 0.035	

[a] Calculated by applying the afterburner efficiency to the uncontrolled fugitive emissions escaping from the kiln product discharge point. These emissions are supposed to be captured and controlled by the afterburner but problems during testing allowed emissions to escape from the kiln end where material leaves the process.
[b] Emissions test of kiln processing used beverage containers for D/F test and painted siding for all other tests.
[c] Emissions test of kiln processing used beverage containers.
[d] Emissions test of kiln processing painted siding.

Because of the lower level of uncontrolled emissions generated when a kiln is operated as a delacquering kiln (i.e., operating temperature of about 1,000°F and processing used beverage containers and painted siding only), an operator could conceivably operate a kiln primarily as a delacquering/decoating kiln but add a small amount of materials, such as oils or insulation, and classify it as a scrap dryer. In this case the operator could thereby operate with less than the MACT floor control equipment 1400°F and 1 second residence time afterburner design, while only reducing emissions to the level of the less stringent alternate emission limits. To preclude this, the EPA is specifying minimum afterburner design and operating requirements of 1 second residence time and 1400°F, MACT floor technology, for those operators electing to process material with oils, coatings, and insulation, in addition to used beverage containers and painted siding, thus operating the equipment as a scrap dryer rather than a delacquering/decoating kiln. The EPA is proposing the second, or alternate, set of emission standards based on data obtained from a kiln being operated as a scrap dryer. These alternate limits are combined with control device design and operating requirements to ensure that control technology representative of MACT is used when an operator chooses to comply with the higher, or less stringent, emission limits associated with a scrap dryer processing scrap with oils, coatings, paints, etc.

As noted above, the emissions data supporting the second or alternate emission limits were obtained from a kiln operating as a scrap dryer at a temperature of about 700°F. These data are summarized in Table 6 and shown in Figure 4. The control technology in use was an afterburner/lime injected fabric filter system representative of MACT for new and existing sources.

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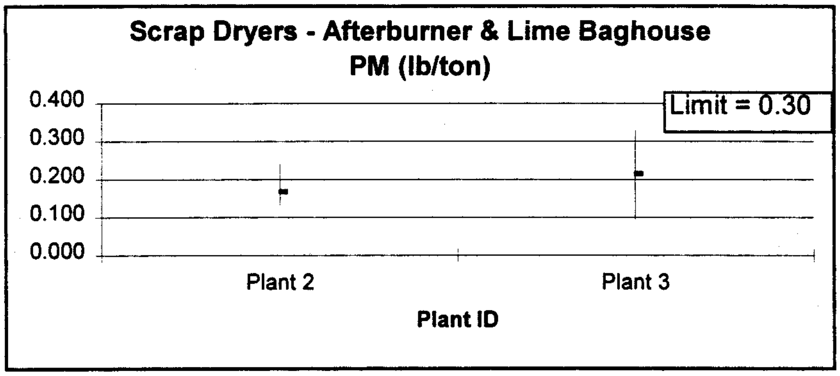
Scrap Drying Operations - Emissions Data

Particulate Matter (lb/ton)

Plant	High	Low	Average
Plant 2	0.240	0.130	0.167
Plant 3	0.370	0.093	0.214



HCl (lb/ton)

Plant	High	Low	Average
Plant 2	1.130	0.420	0.827
Plant 3	1.600	0.680	1.260

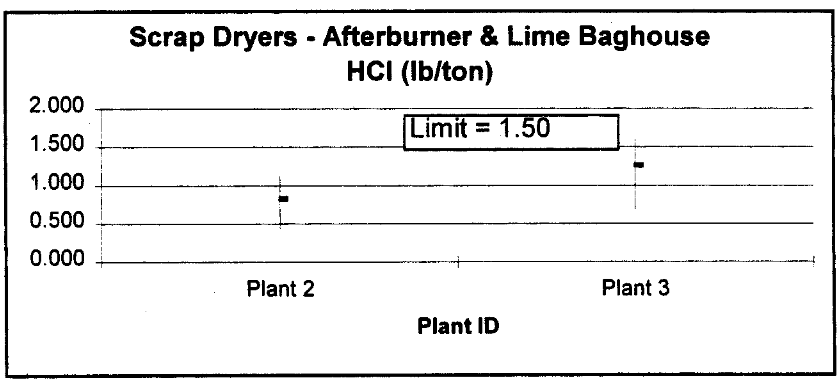
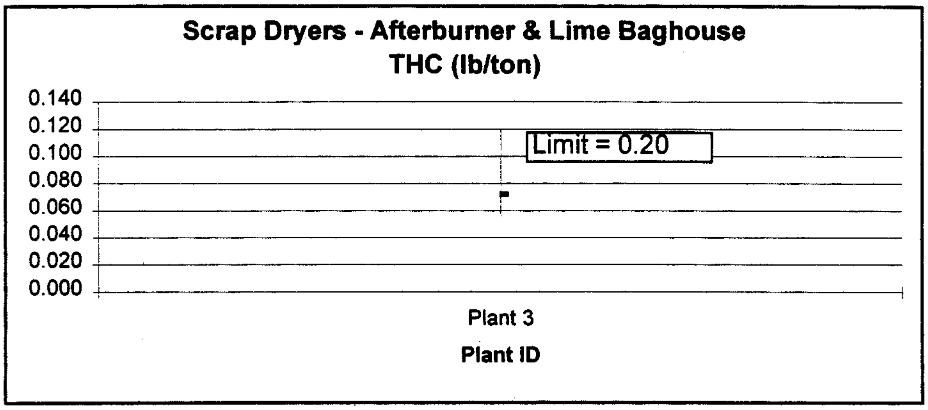


Figure 4. Scrap Dryer Emissions Data

Scrap Drying Operations - Emissions Data

THC (lb/ton)

Plant	High	Low	Average
Plant 3	0.120	0.055	0.072



D/F (µg/Mg)

Plant	High	Low	Average
Plant 3	4.48	1.27	2.69

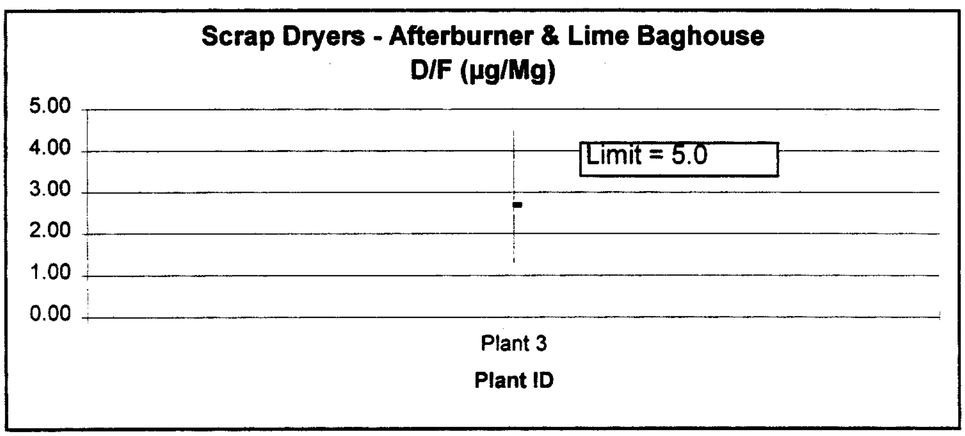


Figure 4 (continued). Scrap Dryer Emissions Data

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The EPA is also proposing a 10 percent opacity limit applicable to fabric filters applied to scrap dryer, and delacquering and decoating kiln waste gas streams if a COM is chosen as the monitoring option. As noted above, the EPA has determined that the presence of a 10 percent or greater opacity discharge from a fabric filter following a successful performance test is a clear indication that the device is not functioning properly.

Sweat furnaces. EPA tested one sweat furnace equipped with a well designed and operated afterburner representative of MACT for new and existing sources.

Controlled D/F emissions averaged 0.35 ng/dscm (1.5×10^{-10} gr/dscf) and are shown in Figure 5. Based on these data, the EPA is proposing a D/F limit for sweat furnaces of 0.80 ng/dscm D/F TEQ (3.5×10^{-10} gr/dscf) corrected to an 11 percent oxygen basis.

BILLING CODE 6560–50–P

Sweat Furnace - Emissions Data

D/F (ng/dscm)

Plant	High	Low	Average
Plant 20	0.7	0.04	0.35

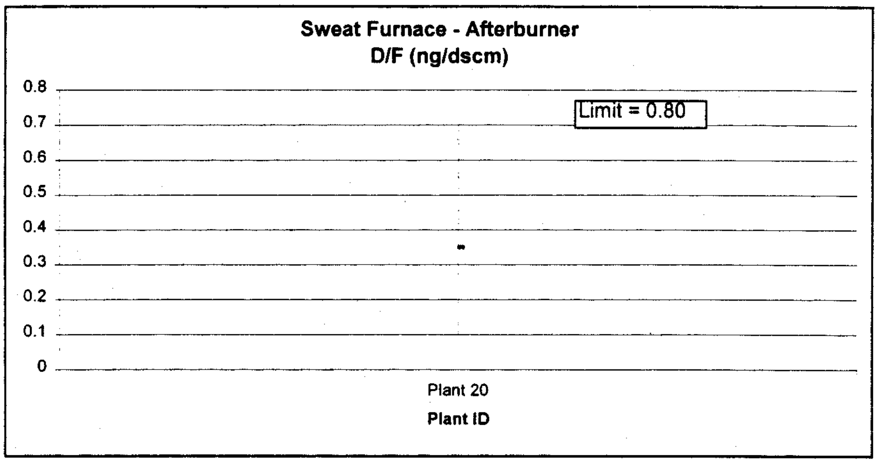

Figure 5. Sweat Furnace Emission Data

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A concentration limit, as opposed to a production based limit, is proposed for this source because materials charged to these furnaces are typically introduced in a random fashion without being weighed. Consequently, determining an emission rate per unit of feed is not a practical option as a format for the emission limit.

Dross-only furnaces. The EPA/industry tested one dross only furnace equipped with a well designed and operated fabric filter representative of the MACT floor for new and existing sources. The PM emissions from tests at this facility averaged 0.104 kg/Mg of feed (0.207 lb/ton). Based on these data as shown in Figure 6, the EPA is proposing a PM limit of 0.15 kg/Mg of feed (0.30 lb/ton).

BILLING CODE 6560–50–P

Dross Only Furnace - Emissions Data

PM (lb/ton)

Plant	High	Low	Average
Plant 23	0.248	0.163	0.207

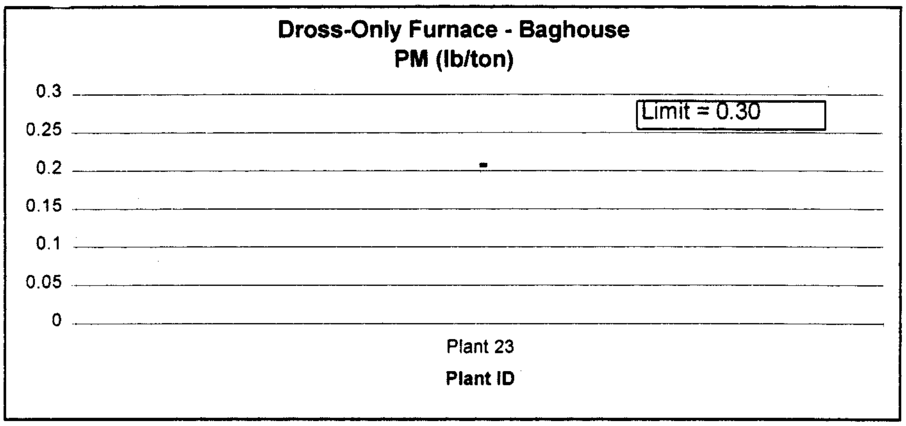

Figure 6. Dross-only Furnace Emissions Data

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The EPA is also proposing a 10 percent opacity limit applicable to fabric filters applied to dross-only furnace waste gas streams if a COM is chosen as the monitoring option. As noted above, the EPA has determined that the presence of a 10 percent or greater opacity discharge from a fabric filter following a successful performance test is a clear indication that the device is not functioning properly.

Rotary dross coolers. The EPA/industry tested two rotary dross coolers equipped with a well designed and operated fabric filter representative of the MACT floor technology for new and existing sources. The PM emissions from tests at these facilities averaged 2.29 and 75.5 mg/dscm (0.001 and 0.033 gr/dscf), respectively. These data are summarized in Table 7 and Figure 7.

TABLE 7.—SUMMARY OF ROTARY DROSS COOLER EMISSION DATA

Plant	PM (mg/dscm)	PM (gr/dscf)
21	2.29	0.001
22	[a] 75.5	[a] 0.033

[a] Plant 22 is equipped with a lime-injected fabric filter.

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Dross Cooling - Emissions Data

PM (gr/dscf)

Plant	High	Low	Average
Plant 21 (Baghouse)	0.001	0.001	0.001
Plant 22 (Lime Baghouse)	0.041	0.023	0.033

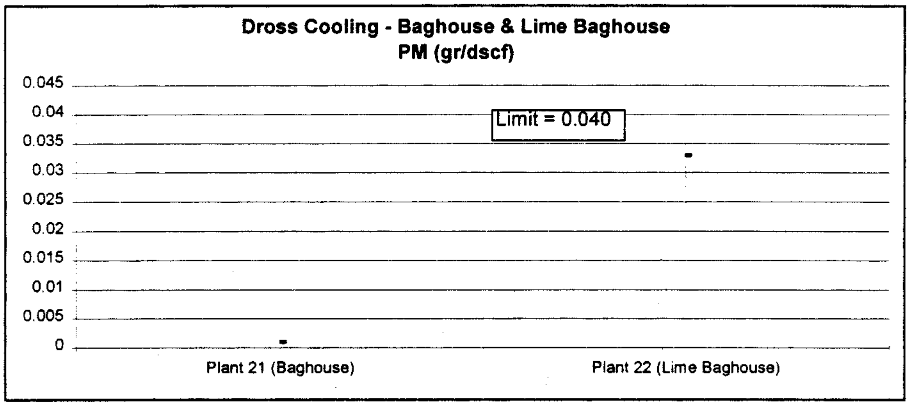

Figure 7. Dross Cooling Emissions Data

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Based on these data the EPA is proposing a PM limit of 92 mg/dscm (0.040 gr/dscf). The proposed PM emission limit represents a level that can be achieved by all rotary dross coolers using the floor technology for new and existing sources.

The EPA is also proposing a 10 percent opacity limit applicable to fabric filters applied to rotary dross cooler waste gas streams if a COM is chosen as the monitoring option. As noted above, the EPA has determined that the presence of a 10 percent or greater opacity discharge from a fabric filter following a successful performance test is a clear indication that the device is not functioning properly.

In-line fluxers. The EPA/industry tested one in-line fluxer equipped with a well designed and operated fabric filter with continuous lime injection representative of the control which is achievable for these emission units. Additional performance test data from the same in-line fluxer was also available (see docket item II–B–19, historical data memo). The PM emissions from tests performed at this facility averaged 0.00170 kg/Mg (0.00340 lb/ton) of feed and are shown in Figure 8. Based on these data the EPA is proposing a PM limit of 0.005 kg/Mg (0.01 lb/ton) of feed for new and reconstructed in-line fluxers. The HCl emissions from tests at this facility averaged 0.0072 kg/Mg (0.014 lb/ton) of feed and are also shown in Figure 8. Based on these data the EPA is proposing an HCl limit of 0.02 kg/Mg (0.040 lb/ton) of feed for new and reconstructed in-line fluxers.

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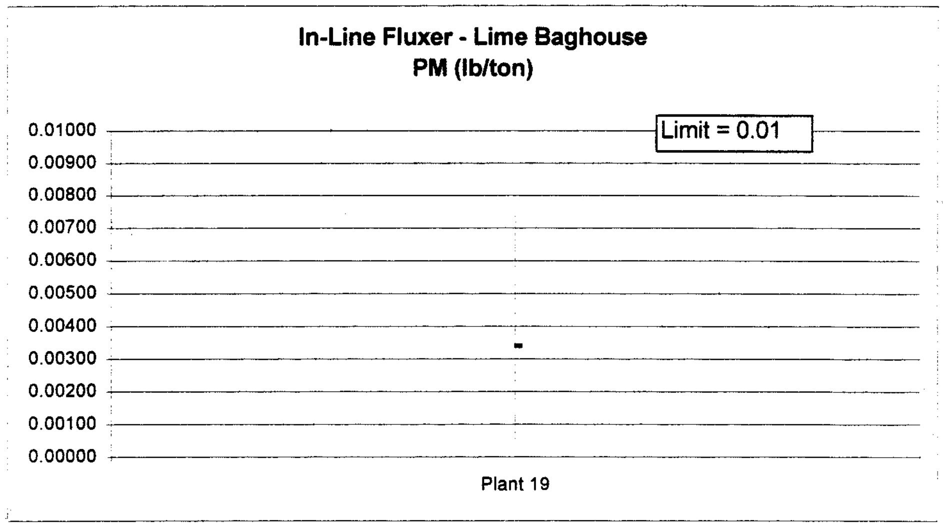
In-Line Fluxer - Emissions Data

PM (lb/ton)

Plant	High	Low	Average
Plant 19	0.00750	0.00034	0.00340



HCl (lb/ton)

Plant	High	Low	Average
Plant 19	0.0286	0.0022	0.0143

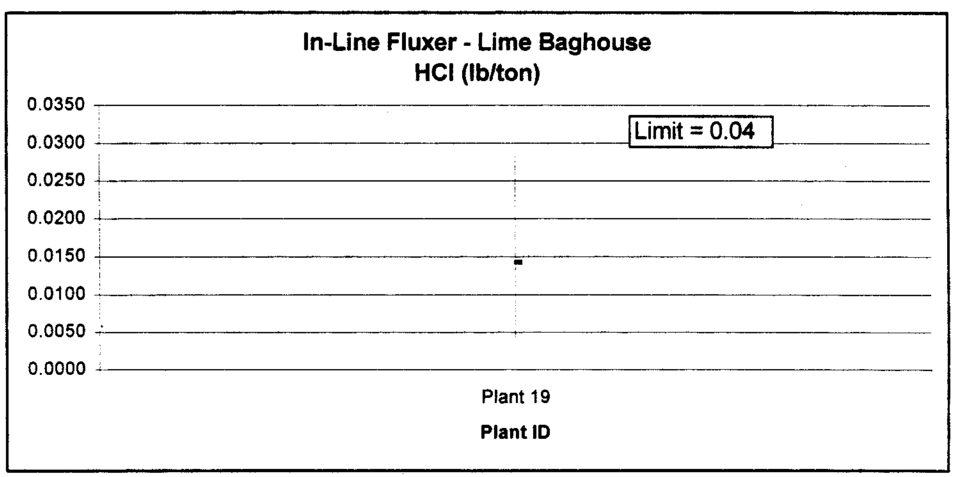


Figure 8. In-line Fluxer Emissions Data

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The EPA is also proposing a 10 percent opacity limit applicable to fabric filters applied to in-line fluxer waste gas streams if a COM is chosen as the monitoring option. As noted above, the EPA has determined that the presence of a 10 percent or greater opacity discharge from a fabric filter following a successful performance test is a clear indication that the device is not functioning properly.

Furnace Operations The EPA spent considerable effort analyzing ICR data and emissions data to evaluate the need for different classes for the remaining furnace types and configurations. Operating practices, control practices, work practices, pollution prevention efforts, furnace charge materials, flux rates and methods, and emissions vary widely within the industry. All of these factors entered into the consideration of different classes (Ref. ICR database, emission data summaries). In addition, there were many meetings and discussions with the industry to discuss and evaluate a multitude of options and issues associated with each factor. At one time, as many as five potential classes were under consideration and discussion. As analyses of the potential classes progressed, many issues were raised regarding definitions of the classes, process operating practices, and control approaches. Further, as potential emissions limits for these classes were discussed, it became evident to the EPA that these furnaces could be compressed into two classes. Therefore, based on evaluation of these options, the EPA is proposing two classes for process furnace operations:

- Group 2 furnaces—clean charge materials with no reactive fluxing.
- Group 1 furnaces—furnaces charging different gradations of clean materials with reactive fluxing to dirty materials with various fluxing amounts/ techniques.

Group 2 furnaces. For group 2 furnaces the EPA is proposing work practice/pollution prevention practices under section 112(h) of the Act. Section 112(h) of the Act provides for the establishment of work practice standards where it is not feasible to prescribe or enforce an emission standard.

The MACT floor for new and existing sources for this group of furnaces consists of work practices/pollution prevention practices including charging and melting only ''clean'' charge materials, as defined in the proposed regulation (molten aluminum, T-bar, sow, ingot, alloying elements, uncoated aluminum chips, aluminum scrap dried/delacquered/decoated, and noncoated runaround scrap), and no reactive fluxing. Compliance with the standard would be demonstrated by labeling of the furnace as group 2, and record keeping of charge and flux materials along with certification every six months that only clean charges were used and that no reactive flux was used in the furnace. The Administrator has determined it is not feasible to prescribe an emission standard for this class of furnaces because the application of measurement methodology is not practicable due to economic limitations.

Group 1 furnaces. Group 1 furnaces consist of all process (melting, holding, refining) furnaces that do not meet the requirements for a group 2 furnace. These include combinations of:

(1) Dirty furnace charge materials and fluxing with or without reactive fluxes, and

(2) Clean furnace charge materials (work practices) with use of reactive fluxing.

The achievable emissions limitation for group 1 furnace emission units and the standard for new and reconstructed group 1 furnaces is based on furnaces in which dirty charge materials and unlimited fluxing are used, and that are equipped with the MACT floor control technology, a fabric filter with a continuous lime injection system. The proposed limits for new and reconstructed group 1 furnaces are shown in Table 8. The basis and rationale for these limits are provided in the emission test data graphs and discussion below.

TABLE 8.—SUMMARY OF GROUP 1 FURNACE EMISSION LIMITS FOR NEW AND RECONSTRUCTED SOURCES (EXCEPT MELTER/HOLDERS PROCESSING CLEAN CHARGE)

Process	PM (lb/ton)	D/F (µg TEQ/ Mg)	HCl[a]	
			(lb/ton)	Removal (%)
Group 1 Furnaces	0.40	15	0.40	90

[a] Facilities with add-on control devices will choose which requirement to comply with.

To meet the emission limits based on MACT floor technology, not all new and reconstructed group 1 furnaces will have to be equipped with lime injected fabric filter systems. Work practices, pollution prevention practices, process design changes, charging clean or almost clean materials, and reduced use of reactive fluxes while controlling the reactive flux injection rate are some control approaches that may be applied to some group 1 furnace installations with varying add-on control approaches such that the resulting HCl and other HAP emissions are below the emission limits being proposed.

To determine the emissions limitations achievable by group 1 furnace emission units and to establish the emission limits for new and reconstructed group 1 furnaces, the EPA and industry tested furnaces in 6 facilities (Plants 6 through 11) with the MACT floor technology applied. The emissions data are presented in Figures 9, 10, and 11 below. The furnace emissions data with control status labeled as ''lime baghouse'' were equipped with the MACT floor technology.

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Group 1 Furnace - Summary Data

PM (lb/ton)

Plant	Control Status	Furnace ID	High	Low	Average
Plant 6	Lime Baghouse	1	0.210	0.130	0.165
Plant 7	Lime Baghouse	2	0.042	0.015	0.029
Plant 8	Lime Baghouse	3	0.055	0.016	0.035
Plant 9	Lime Baghouse	4	0.316	0.246	0.277
Plant 11	Lime Baghouse	5	0.236	0.008	0.075
Plant 12 #1	Work Practice - Semi Clean Charge	6	0.159	0.074	0.115
Plant 12 #2	Work Practice - Semi Clean Charge	7	0.665	0.132	0.352
Plant 12 #3	Work Practice - Semi Clean Charge	8	0.282	0.138	0.229
Plant 12 #4	Work Practice - Semi Clean Charge	9	0.131	0.076	0.105
Plant 13	Work Practice - Clean Charge	10	0.031	0.024	0.027
	Work Practice - Clean Charge	11	0.090	0.040	0.063
	Work Practice - Clean Charge	12	0.170	0.080	0.133
Plant 14	Work Practice - Clean Charge	13	0.128	0.037	0.072
	Work Practice - Clean Charge	14	0.149	0.091	0.120
Plant 15	Work Practice - Clean Charge	15	0.023	0.022	0.022
	Work Practice - Clean Charge	16	0.126	0.112	0.119
	Work Practice - Clean Charge	17	0.224	0.096	0.151
Plant 16	Work Practice - Clean Charge	18	0.225	0.108	0.163
	Work Practice - Clean Charge	19	0.052	0.014	0.032
	Work Practice - Clean Charge	20	0.043	0.006	0.019
Plant 17	Work Practice - Clean Charge	21	0.386	0.204	0.268
	Work Practice - Clean Charge	22	0.391	0.086	0.244
	Work Practice - Clean Charge	23	0.541	0.214	0.342
	Work Practice - Clean Charge	24	0.516	0.181	0.372

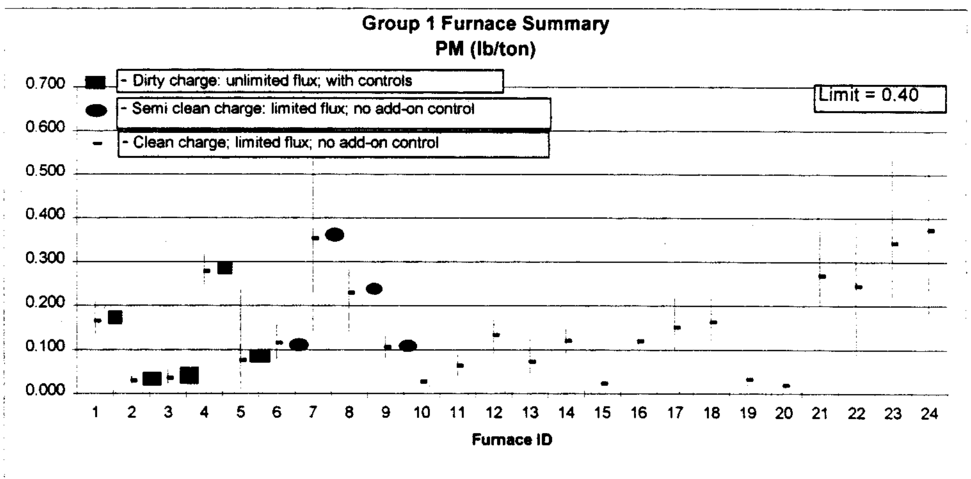


Figure 9. Group 1 Furnace Emission Data - PM

Group 1 Furnace - Summary Data

HCl (lb/ton)

Plant	Control Status	Furnace ID	High	Low	Average
Plant 7	Lime Baghouse	1	0.860	0.012	0.357
Plant 9	Lime Baghouse	2	1.042	0.000	0.347
Plant 10	Lime Baghouse	3	0.160	0.021	0.070
Plant 11	Lime Baghouse	4	0.050	0.018	0.029
Plant 12 #1	Work Practice - Semi-clean charge	5	0.217	0.016	0.084
Plant 12 #2	Work Practice - Semi-clean charge	6	0.073	0.033	0.049
Plant 12 #3	Work Practice - Semi-clean charge	7	0.545	0.039	0.263
Plant 12 #4	Work Practice - Semi-clean charge	8	0.107	0.087	0.094
Plant 13	Work Practice - Clean charge	9	0.012	0.007	0.009
	Work Practice - Clean charge	10	0.065	0.039	0.053
	Work Practice - Clean charge	11	0.100	0.010	0.067
Plant 14	Work Practice - Clean charge	12	0.0030	0.0000	0.0020
	Work Practice - Clean charge	13	0.1220	0.0380	0.0770
	Work Practice - Clean charge	14	0.2630	0.1530	0.2380
Plant 15	Work Practice - Clean charge	15	0.0036	0.0018	0.0027
	Work Practice - Clean charge	16	0.0646	0.0236	0.0430
	Work Practice - Clean charge	17	0.2530	0.1870	0.2170
Plant 16	Work Practice - Clean charge	18	0.0030	0.0020	0.0023
Plant 17	Work Practice - Clean charge	19	0.0023	0.0007	0.0013
	Work Practice - Clean charge	20	0.1107	0.0157	0.0745
	Work Practice - Clean charge	21	0.3158	0.1287	0.2078
	Work Practice - Clean charge	22	0.3902	0.2979	0.3555
	Work Practice - Clean charge	23	0.2900	0.1300	0.2400

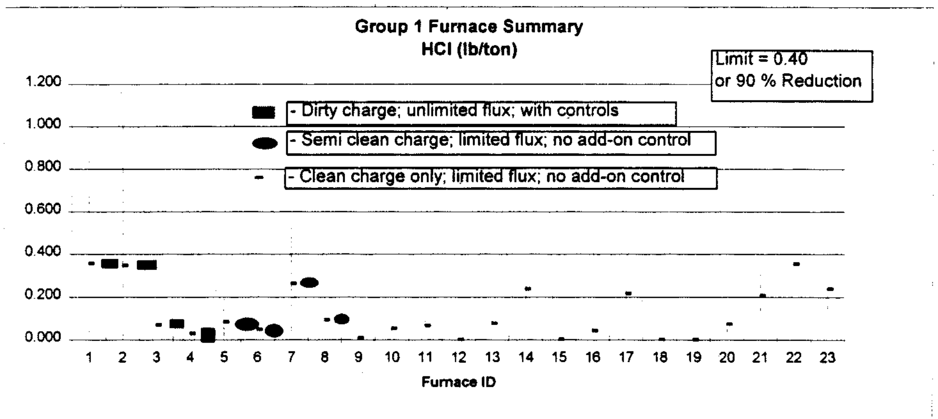
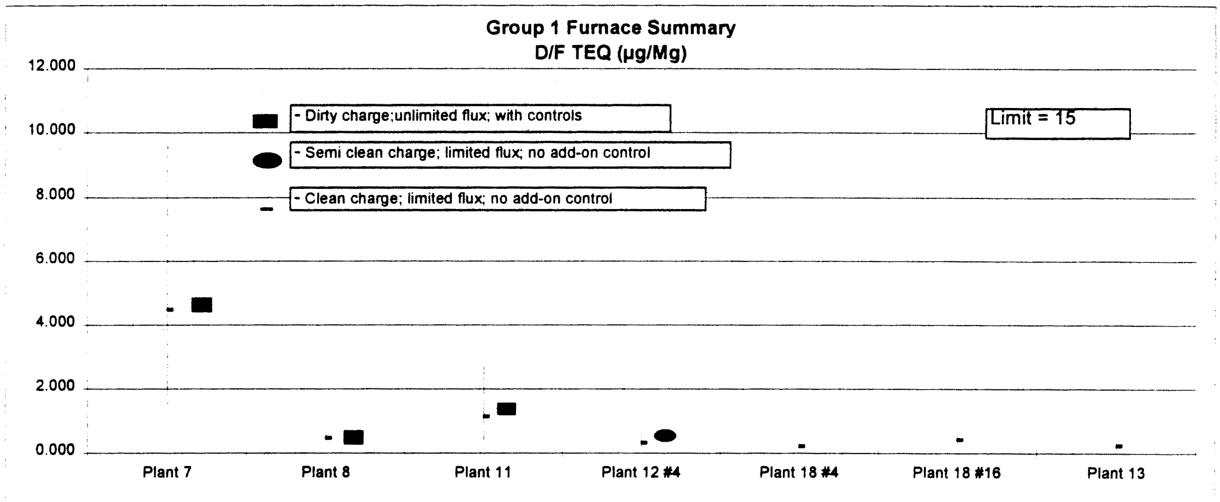


Figure 10. Group 1 Furnace Emission Data - HCl

Group 1 Furnace - Summary Data

D/F TEQ (μg/Mg)

Plant	Control Status	High	Low	Average
Plant 7	Lime Baghouse	9.600	1.430	4.480
Plant 8	Lime Baghouse	0.584	0.320	0.457
Plant 11	Lime Baghouse	2.750	0.370	1.140
Plant 12 #4	Work Practice - Semi-clean charge	0.631	0.083	0.306
Plant 18 #4	Work Practice - Clean charge	0.491	0.029	0.212
Plant 18 #16	Work Practice - Clean charge	0.560	0.281	0.414
Plant 13	Work Practice - Clean charge	0.585	0.049	0.236



Note: An emission rate of 15 μg/Mg is equivalent to a D/F concentration ranging from 0.9 to 15.5 ng/dscm for the seven series of tests.

Figure 11. Group 1 Furnace Emission Data - D/F TEQ

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In addition, the EPA and industry tested group 1 furnaces that had no add-on control technologies, but used work practices/pollution prevention practices such as process design changes that allowed reduced levels of reactive fluxing, as well as selective scrap charging (but not ''clean charge''), to achieve lower levels of HAP emissions. Both melting and holding furnaces were included in these tests. These results are also shown in Figures 9, 10, and 11. These furnace data are labeled with control status as ''work practice.''

All of the data in Figures 9, 10, 11 were considered in determining the achievable emissions limitations for group 1 furnace emission units and in establishing the proposed emission limits for new and reconstructed individual Group 1 furnaces that are listed in Table 8 above. Some of the variations in the work practice/pollution prevention emissions are due to different design of process, work practice, and pollution prevention alternatives, and the fact that these emissions will vary with the differing grades of aluminum produced.

Average PM emission levels from group 1 furnaces equipped with MACT floor add-on air pollution control devices varied from a low of 0.029 to a high of 0.28 lb/ton of feed. Average HCl emission levels from furnaces equipped with MACT floor add-on air pollution control devices varied from a low of 0.07 to a high of 0.36 lb/ton of feed. The equivalent ranges of emissions for the work practice/pollution prevention practice furnaces were 0.019 to 0.37 lb/ton and 0.001 to 0.36 lb/ton of PM and HCl, respectively.

The three test results for average D/F emissions from group 1 furnaces equipped with MACT floor add-on air pollution control devices ranged from a low value of 0.46 to a high value of 4.5 µg D/F TEQ/Mg of feed. For the four work practice/pollution prevention practice furnaces, the range was 0.21 to 0.41 µg D/F TEQ/Mg.

To provide another perspective on the achievable D/F emission limitation, the 15 µg/Mg of feed emission limit (proposed for new and reconstructed group 1 furnaces) expressed on a concentration basis for the furnaces tested would be about 0.9 to 15.5 ng D/F TEQ/dscm depending on the quantity of waste gas flow from the furnace.

The proposed standards for new and reconstructed group 1 furnaces shown in Table 8 provide the option of achieving a 90 percent emission reduction in HCl discharged from the furnace in lieu of meeting an emission limit of 0.40 lb/ton. The EPA considered that group 1 furnaces can be used to process a wide variety of scrap types (i.e., clean, with insulation, oils, coated, painted, etc.) and perform various fluxing operations with multiple agents including HAP producing and non-HAP producing fluxes (i.e., salts, chlorine gas, nitrogen/chlorine bi-gas, etc.) to produce a wide range of aluminum alloys. Because of the potential differences in charge make-up, fluxing, work practices, and final aluminum properties, there is potential for variability in HCl, organic HAPs, particulate metal HAPs, and D/F emitted by the group 1 furnaces. In recognition of the different operating modes applicable to these emission units and affected sources and to promote the most cost-effective and economical approach to MACT controls while achieving the MACT add-on air pollution control device equivalent reductions, the EPA is proposing a dual HCl emission standard for new and reconstructed group 1 furnaces. Both a numerical emission limit and an alternate percent reduction requirement are being proposed. Some furnaces process scrap that contains relatively large amounts of chloride compounds. This factor in combination with high fluxing rates necessary to refine some aluminum can yield control device inlet HCl quantities in excess of 4 lbs/ton of feed. In these circumstances the floor technology may not be able to meet the limit of 0.40 lb/ton, but can comply with the 90 percent removal requirement which is representative of what the MACT floor technology is capable of achieving. Test results from Plants 7, 9, and 10, shown in Figure 10, indicated that HCl efficiencies in excess of 90 percent removal were achieved. The range of variation in measured efficiencies was significant at two facilities with some test results below 90 percent. In these tests the lime usage rates were not adequately controlled to achieve consistent HCl removal, hence a wide variation in HCl removals resulted.

The level of removal achievable became an issue with the industry and to resolve this issue the EPA tested another group 1 furnace in Plant 11 with a lime injected fabric filter. During these tests the lime injection rate was controlled to consistently achieve greater than 90 percent removal of HCl. Individual test results for this furnace are shown in Table 9. These and other data demonstrate that fabric filters operated with continuous lime injection into the gas stream upstream of the fabric filter inlet are capable of consistently achieving at least 90 percent removal.

TABLE 9.—PLANT 11 HC1 INDIVIDUAL TEST RESULTS

Test No.	Inlet lb/ton	Outlet lb/ton	Percent removal
1	2.64	.018	99.3
2	2.66	0.020	99.2
3	1.31	0.050	96.2
4	2.10	0.028	98.7

New and reconstructed group 1 furnaces processing clean charge materials only, that perform both melting and holding functions including reactive fluxing within the same unit (i.e., melter/holder), and that do not transfer molten aluminum to or from another furnace would be subject to alternate standards. These units perform the operations normally carried out in two or more separate furnaces within the confines of one furnace. Emission data obtained from tests on a melter/holder furnace are shown in Figure 12.

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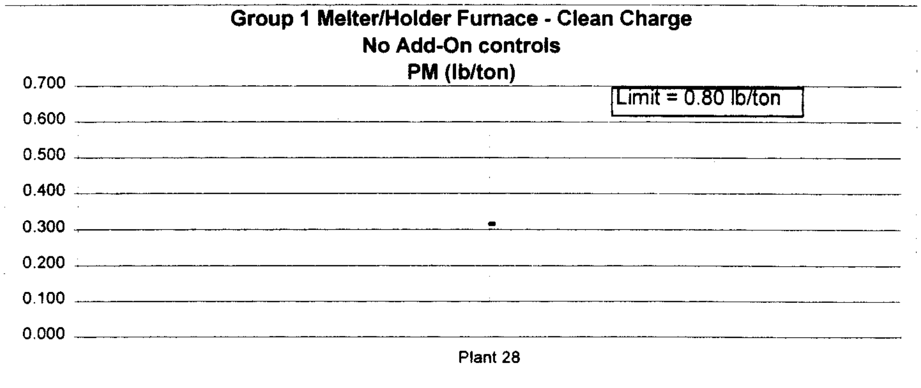
Group 1 Melter/Holder Furnace Operations

PM (lb/ton)

Plant	High	Low	Average
Plant 28	0.581	0.091	0.315



HCl (lb/ton)

Plant	High	Low	Average
Plant 28	0.307	0.133	0.230

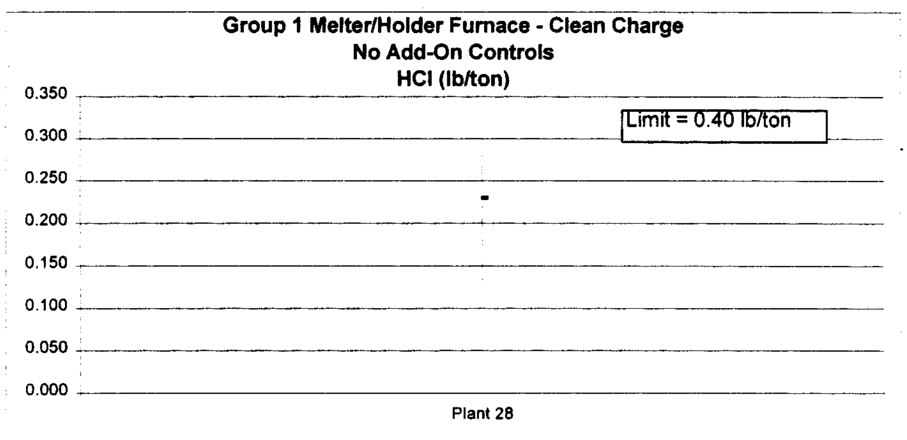


Figure 12. Group 1 Furnace Melter/Holder Emissions Data

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Emission limits are proposed for PM and HCl emissions from new and reconstructed group 1 melter/holders. Those limits are shown in Table 10. The PM standard for new and reconstructed group 1 melter/holder furnaces processing only clean charge materials is 0.40 kg/Mg (0.80 lb/ton) of charge and the alternate HCl standard is 0.20 kg/Mg (0.40 lb/ton) of charge.

TABLE 10.—SUMMARY OF NEW AND RECONSTRUCTED GROUP 1 MELTER/HOLDER EMISSION LIMITS

Process	PM (lb/ton)	D/F[b] (µg TEQ/Mg)	HCl (lb/ton)
Group 1 Melter/Holder Furnaces[a]	0.80	....	0.40 or 90 percent removal.

[a] Performing both melting and holding functions in the same furnace and processing only clean charge materials.
[b] No dioxin limit because this furnace uses clean charge.

Operators of group 1 side-well furnaces would be permitted to conduct reactive fluxing operations in the furnace side-well only. If reactive fluxing operations are conducted in the furnace hearth, those emissions must be captured and ducted to a control device. In this event total furnace emissions (hearth plus side-well) would be subject to the new and reconstructed group 1 furnace emission limits.

In addition to the above standards, the EPA is also proposing a 10 percent opacity limit applicable to the waste gas discharge from any fabric filter applied to a group 1 furnace if a COM is chosen as the monitoring option. As noted above, the EPA has determined that the presence of a 10 percent or greater opacity discharge from a fabric filter following a successful performance test is a clear indication that the device is not functioning properly.

Secondary aluminum processing units. Available data from existing group 1 furnace emission units and existing in-line fluxers were analyzed to determine the emissions limitations which could be realized through the application of add-on control devices and pollution prevention/work practices. These data have been presented in the paragraphs in this section of this document relating to group 1 furnaces and in-line fluxers. A secondary aluminum processing unit is composed of all of the existing group 1 furnace emission units and all of the existing in-line fluxer emission units at a secondary aluminum production facility. Emission standards for this affected source have been proposed, based on throughput weighted processing of material in emission units controlled to achievable emission limitations. Limits for PM, HCl and D/F have been proposed on a production basis. (Operators of group 1 furnaces with very high potential HCl emissions may choose to calculate the HCl limit for any or all individual group 1 furnace emission units on the basis of achieving a 90 percent reduction in potential HCl emissions.) Based on the emissions achievable by individual emission units, the following standards are proposed:

$$L_{t_{PM}} = \frac{\sum_{i=1}^{n}\left(L_{i_{PM}} \times T_i\right)}{\sum_{i=1}^{n}\left(T_i\right)}$$

$$L_{t_{HCl}} = \frac{\sum_{i=1}^{n}\left(L_{i_{HCl}} \times T_i\right)}{\sum_{i=1}^{n}\left(T_i\right)}$$

$$L_{t_{D/F}} = \frac{\sum_{i=1}^{n}\left(L_{i_{D/F}} \times T_i\right)}{\sum_{i=1}^{n}\left(T_i\right)}$$

Where:

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]. Operators may choose to calculate this limit on the basis of 90 percent reduction in potential HCl emissions.

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/Mg (gr/ton) of feed]

$L_{tD/F}$=the overall D/F emission limit for the secondary aluminum processing unit [µg/Mg (gr/ton) of feed], and

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

The emissions limits L_{iPM}, L_{iHCl}, and $L_{iD/F}$ to be used in calculating the proposed standards for secondary aluminum processing units are those proposed for individual new and reconstructed in-line fluxers and group 1 furnaces. Production in clean charge group 1 furnaces can not be included in calculating the overall D/F emission limit, because it is assumed that these furnaces are capable of operation with no D/F emissions, and because these emission units are not subject to D/F limits. In-line fluxers that operate using no reactive flux materials cannot be included in the calculations of the overall PM and HCl emission limits since they are not subject to emission limits for PM and HCl.

In addition to the above standards, the EPA is also proposing a 10 percent opacity limit applicable to the waste gas discharged from any fabric filter applied to a furnace process train if a COM is chosen as the monitoring option. As noted above, the EPA has determined that the presence of a 10 percent or greater opacity discharge from a fabric filter following a successful performance test is a clear indication that the device is not functioning properly.

D. Selection of Operating and Monitoring Requirements

The EPA identified and analyzed the hierarchy of monitoring options available for this source category. The array of monitoring options includes the direct measurement of HAP or HAP surrogates by a CEM or COM, periodic performance tests, continuous monitoring of process or control device operating parameters that are related to emissions of HAP, and recordkeeping and certification requirements. Each option that was relevant to a process or add-on control device was evaluated relative to its technical feasibility and cost.

A CEM provides a direct measurement of emissions of HAP or HAP surrogates. CEMs are commercially available for HCl and THC. PM CEMs are also available, however, the technical feasibility of these devices for monitoring affected sources and emission units in this source category has not yet been demonstrated, and the estimated capital cost of PM monitoring systems is $213,000 with annual costs of $66,000 (see docket item II–B–24, enhanced monitoring options memo). These costs are significantly higher than those of other available options.

Continuous opacity monitoring systems (COMs) do not provide a direct measurement of PM emissions but do provide continuous indication of fabric filter performance. These devices are presently in use on affected sources and emission units within this source category. Bag leak detection systems also provide a continuous indication of fabric filter performance and are less expensive to install and operate than COMs.

Periodic performance tests by established EPA test methods are required by the proposed rule. These tests provide important information about HAP emissions. The expense of conducting performance tests (see docket item II–B–24, enhanced monitoring options memo) limits their usefulness as a means of ensuring continuous compliance with an emission standard.

Another option for compliance assurance is monitoring control device operating parameters coupled with repeat emission tests prior to permit renewal (i.e., every 5 years). Control device operating parameters can be monitored to ensure continued good operation and maintenance. Test data and operating experience have shown that maintaining operating parameters within a specified range of values (those established based on existing data or performance tests) can be used to ensure that the control device is operating properly and is well maintained. Operating parameters and defined work practices consistent with pollution prevention can also be used to maintain emissions within limits.

In selecting monitoring requirements to ensure continuous compliance with the proposed emission standards, the EPA has considered technical feasibility and cost for all applicable options for each combination of pollutant, affected source and control technique. In some cases, where several monitoring options are technically feasible and equally reliable, and where the operator has already installed a particular type of monitor, the proposed rule allows the owner or operator to select a monitoring technique such that a presently installed, appropriate monitor may continue to be used.

Finally, the proposed rule recognizes that the owner or operator may, through performance testing under varying conditions, be able to devise and demonstrate the feasibility of certain monitoring parameters and procedures. The proposed rule provides a procedure by which site-specific monitoring plans for certain affected sources and emission units can be submitted with appropriate documentation for consideration by the permitting authority. A site-specific monitoring plan, when approved, would provide alternate monitoring procedures and parameter levels for secondary aluminum processing units, emission units and combinations of emission units. Performance testing requirements, discussed in section IV. E. of this preamble, are proposed to ensure that each affected source is capable of meeting the applicable emission standards for HAP or HAP surrogates. Operating requirements are proposed to ensure that affected sources continuously meet these emission standards. Monitoring requirements are proposed to ensure that each owner or operator can demonstrate that the operating requirements have been met.

1. Operating and Monitoring Requirements and Options for Affected Sources and Emission Units

Owners or operators of affected sources would be required to submit an O, M, & M plan as part of their applications for a part 70 or part 71 permit. The plan would include procedures for the proper operation and maintenance of affected sources and control devices used to comply with the emission limits as well as the corrective actions to be taken when control devices or process parameters deviate from allowable levels established during performance testing. The plan would also identify the procedures for proper operation and maintenance of monitoring devices including periodic calibration and verification of accuracy.

Operating requirements. The proposed rule provides specific operating requirements for each affected source, and for emission units within a secondary aluminum processing unit, which are necessary to ensure that the conditions during initial and periodic performance tests are not changed between performance tests in such a way as to increase emissions beyond the proposed standards. Owners or operators of affected sources are required to operate the affected source and controls within established parameter ranges. In addition, the proposed operating requirements incorporate the applicable provisions of the site-specific O, M, & M plan. These plans include specific corrective actions to be taken to maintain emissions within acceptable levels.

Operating requirements are also proposed which specify work practices for group 2 ''clean charge'' furnaces; require labeling of all affected sources and emission units to facilitate compliance assurance; specify capture system design and operating parameters for all affected sources and emission units with add-on control devices; restrict operation and fluxing practices conducted in group 1 sidewell furnaces; and establish a means by which site-specific operating plans for group 1 furnaces without add-on control devices can be developed and approved.

Monitoring requirements. The EPA is proposing monitoring procedures for each emission limitation proposed under the rule. The EPA is not requiring the use of CEMs. PM CEMs have not been demonstrated for use with affected sources and emission units in this source category. PM CEMs, as well as HCl CEMs and THC CEMs, are substantially more expensive than other effective monitoring methods (see docket item II–B–24, enhanced monitoring options memo).

(a) Scrap Shredder. The proposed monitoring alternatives for scrap shredders are COMs, bag leak detectors or daily visual emissions testing by EPA Method 9 of appendix A to 40 CFR part 60. Continuous opacity monitoring systems (COMs) provide a continuous indication of fabric filter performance. These devices are presently in use on affected sources within this source category. Bag leak detection systems also provide a continuous indication of fabric filter performance and are less expensive to install and operate than COMs. Requirements for COMs and bag leak detectors are discussed in section IV.D.2 of this document, *Operating and Monitoring Requirements and Options for Affected Sources and Emission Units Equipped with Fabric Filters or Lime Injected Fabric Filters.*

Under the visible emission monitoring option, a certified observer would perform daily visible emissions observations (five 6-minute readings in a 30-minute period) for each fabric filter according to the requirements of Method 9 of appendix A to 40 CFR part 60 and the general provisions in subpart A of 40 CFR part 63. If any visible emissions were observed, the owner or operator would be required to initiate corrective actions in accordance with the O, M, & M plan within 1-hour to correct the cause of the emissions. Visual emissions monitoring by Method 9 is an appropriate monitoring option for scrap shredders because these affected sources are intermittently operated and Method 9 can be used to determine opacity during periods of operation.

(b) Chip Dryer. Monitoring requirements for chip dryers under the proposed NESHAP include feed/charge weight monitoring as discussed in section IV.D.3 of this document, *Other Operating Requirements, Monitoring Systems and Procedures: Feed/Charge Weight*, afterburner temperature monitoring as discussed in section V.D.3 of this document, *Other Operating Requirements, Monitoring Systems and Procedures: Afterburner Operating Temperature*. The identity (i.e. uncoated, unpainted aluminum chips) of each batch of material charged must be recorded to ensure compliance with the requirement to process only uncoated, unpainted aluminum chips.

(c) Scrap Dryer/delacquering kiln/decoating kiln.

Monitoring requirements for scrap dryers/delacquering kilns/decoating kilns under the proposed NESHAP include feed/charge weight monitoring as discussed in section IV.D.3 of this document, *Other Operating Requirements, Monitoring Systems and Procedures: Feed/Charge Weight*, afterburner temperature monitoring as discussed in section IV.D.3 of this document, *Other Operating Requirements, Monitoring Systems and Procedures: Afterburner Operating Temperature*, and fabric filter monitoring as discussed in section IV.D.2 of this document, *Operating and Monitoring Requirements and Options for Process Units Equipped with Fabric Filters or Lime-injected Fabric Filters.*

(d) Clean Charge (Group 2) Furnace. Monitoring requirements for clean charge (group 2) furnaces under the proposed NESHAP are charge makeup and flux identity recordkeeping, and periodic certification that only clean charge has been processed and that no reactive flux has been used. No numerical emission limits are proposed for clean charge furnaces as discussed in section D.2. of this document, *Selection of MACT Floor Technologies: Group 2 furnaces.* Recordkeeping and certification requirements are necessary to ensure that the affected sources are operating as clean charge (group 2) furnaces.

(e) Sweat Furnace. The monitoring requirement for sweat furnaces under the proposed NESHAP is afterburner temperature monitoring as discussed in section IV.D.3 of this document, *Other Operating Requirements, Monitoring Systems and Procedures: Afterburner Operating Temperature.*

(f) Dross-only Furnace. Monitoring requirements for dross-only furnaces under the proposed NESHAP include feed/charge recordkeeping as described in section IV.D.3 of this document, *Other Operating Requirements, Monitoring Systems and Procedures: Feed/Charge Weight,* and fabric filter monitoring, (bag leak detection systems or COMs) as discussed in section IV.D.2 of this document, *Operating and Monitoring Requirements and Options for Process Units Equipped with Fabric Filters and Lime-injected Fabric Filters.*

(g) In-line Fluxer. Monitoring requirements for in-line fluxers under the proposed NESHAP include feed/charge weight monitoring as discussed in section IV.D.3 of this document, *Other Operating Requirements, Monitoring Systems and Procedures: Feed/Charge Weight,* monitoring of chlorine injection rate as described in section IV.D.3 of this document, *Other Operating Requirements, Monitoring Systems and Procedures: Total reactive chlorine flux injection rate and schedule,* and, for in-line fluxers equipped with add-on control devices, fabric filter monitoring as discussed in section IV.D.2 of this document, *Operating and Monitoring Requirements and Options for Process Units Equipped with Fabric Filters and Lime-injected Fabric Filters.*

(h) Rotary Dross Cooler. Monitoring requirements for rotary dross coolers are to comply with one of two monitoring options to demonstrate continuous compliance with the PM standard. These options (bag leak detection systems or COMs), and the applicable monitoring requirements, are discussed in section IV.D.2 of this document, *Operating and Monitoring Requirements and Options for Process Units Equipped with Fabric Filters and Lime-injected Fabric Filters.*

(i) Group 1 Furnace With Add-on Controls. Monitoring requirements for group 1 furnaces with add-on controls under the proposed NESHAP include feed/charge weight monitoring as discussed in section IV.D.3 of this document, *Other Operating Requirements, Monitoring Systems and Procedures: Feed/Charge Weight,* monitoring of chlorine injection rate as described in section IV.D.3 of this document, *Other Monitoring Systems and Procedures: Total reactive chlorine flux injection rate and schedule,* and fabric filter monitoring as discussed in section IV.D.2 of this document, *Operating and Monitoring Requirements and Options for Process Units Equipped with Fabric Filters and Lime-injected Fabric Filters.*

(j) Group 1 Furnace Without Add-on Controls and Using Pollution Prevention/Work Practices (Processing Only Clean Charge). Monitoring requirements for group 1 furnaces without add-on controls (processing only clean charge) and employing pollution prevention/work practices to limit emissions under the proposed NESHAP include feed/charge weight monitoring as discussed in section IV.D.3 of this document, *Other Operating Requirements, Monitoring Systems and Procedures: Feed/Charge Weight,* monitoring of chlorine injection rate as described in section IV.D.3 of this document, *Other Operating Requirements, Monitoring Systems and Procedures: Total reactive chlorine flux injection rate and schedule* and a semi-annual certification that only clean charge had been processed.

(k) Group 1 Furnace Without Add-on Controls Using Pollution Prevention/Work Practices Processing Scrap Other Than Clean Charge. Proposed monitoring requirements for group 1 furnaces not equipped add-on controls using pollution prevention/work practices and processing scrap other than clean charge include feed/charge weight monitoring as discussed in section IV.D.3 of this document, *Other Operating Requirements, Monitoring Systems and Procedures: Feed/Charge Weight* and monitoring of chlorine injection rate as described in section IV.D.3 of this document, *Other Operating Requirements, Monitoring Systems and Procedures: Total reactive chlorine flux injection rate and schedule.*

Operators of these furnaces would be required to develop a site-specific monitoring plan acceptable to the permitting authority. The plan would include additional parameters to be monitored, based on supporting information provided by the operator and developed in coordination with the permitting authority, which demonstrates the correlation between these parameters and the actual emissions from these furnaces.

If the site-specific monitoring plan includes scrap sampling as a means of monitoring, the scrap sampling program must, at a minimum, include the elements described in section IV.D.3 of this document, *Other Operating Requirements, Monitoring Systems and Procedures: Scrap inspection program.* If the site-specific monitoring plan includes the use of CEMs, the operator must install, operate and maintain the CEMs as described in section IV.D.3 of this document, *Other Operating Requirements, Monitoring Systems and Procedures: Continuous emission monitoring systems.* If the site-specific monitoring plan includes limitations on the chlorine injection rate, the operator must monitor reactive flux injection as described in section IV.D.3 of this document, *Other Operating Requirements, Monitoring Systems and Procedures: Total reactive chlorine flux injection rate and schedule.* The specific parameters monitored under a site-specific monitoring plan must be proposed by the owner or operator along with supporting documentation and approved by the permitting authority.

(l) Secondary Aluminum Processing Units. All of the existing group 1 furnaces and all of the existing in-line fluxers within a facility make up the secondary aluminum processing unit. Each group 1 furnace emission unit within the secondary emission processing unit would be subject to the same operating and monitoring requirements as proposed for group 1 furnaces. Each in-line fluxer emission unit within the secondary emission processing unit would be subject to the same operating and monitoring requirements as proposed for in-line fluxers.

Operators of secondary aluminum processing units would be required to determine throughput weighted emissions of PM, HCl and D/F for each 24 hour period. Compliance with the overall emission limits would be determined daily, on the basis of a rolling average of the daily throughput weighted emissions determined for the three most recent 24 hour periods. The daily emissions determination, coupled with the three day (24 hour) rolling average for compliance determination, are being proposed in recognition of the overlapping operating cycles of the equipment within the secondary aluminum emissions unit. The three day (24 hour) rolling average will have the effect of damping out spikes in calculated emissions which might occur when emission units are charged just before or just after the beginning of a 24 hour determination period, and will accommodate different furnace cycles.

2. Operating and Monitoring Requirements and Options for Affected Sources and Emission Units Equipped With a Fabric Filter and Subject to PM Limits

Operating requirements. The proposed rule provides specific operating requirements for fabric filters and lime-injected fabric filters which are necessary to ensure that the conditions during initial and periodic performance tests are not changed between performance tests in such a way as to increase emissions beyond the proposed standards. Owners or operators of affected sources and emission units controlled by these devices are required to operate bag leak detectors or COMs (in the case of scrap shredders, visible emissions testing may be conducted as an alternative).

If a bag leak detection system is used, the owner or operator must operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time would be counted. If corrective action is required, each alarm shall be counted as a minimum of one hour. The proposed standard requires that the owner or operator initiate corrective action within 1-hour of an alarm. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time would be counted as the actual amount of time taken by the owner or operator to initiate corrective action. If a COM is used, the owner or operator must initiate corrective action within 1-hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the O, M, & M plan.

Additional operating requirements are proposed to ensure that lime injection is maintained at performance test levels and schedules, and (for scrap dryers/delacquering kilns/decoating kilns, group 1 furnaces and in-line fluxers) that inlet gas temperatures do not exceed performance test levels. In addition, the proposed operating requirements incorporate the applicable provisions of the site-specific O, M, & M plan. These plans include specific corrective actions to be taken to maintain emissions within acceptable levels.

(a) *PM Monitoring Alternatives.* The owner or operator of a scrap dryer/delacquering kiln/decoating kiln, group 1 furnace (including melter/holder), dross-only furnace, rotary dross cooler or in-line fluxer equipped with a fabric filter or a lime-conditioned fabric filter would have two monitoring options. These options are installation and operation of a COM in accordance with PS–1 of appendix B to part 60 of this chapter, or installation and operation of a bag leak detection system.

Operators of scrap shredders may conduct visual emissions observations as an alternative to the use of bag leak detection systems or COMs. Requirements for the use of visual emission monitoring are described in section IV.D.1 of this document, *Operating and Monitoring Requirements for Affected Sources: Scrap Shredder.*

If a bag leak detection system is the selected monitoring alternative, it must be installed and operated according to ''Fabric Filter Bag Leak Detection Guidance,'' EPA–454/R–98–015, September 1997. This document is available from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161.

The bag leak detection system also must meet equipment specifications included in the rule. These include: (1) Manufacturer certification that the system is capable of detecting PM emissions at concentrations of 10 mg per actual cubic meter (0.0044 grains per actual cubic foot) or less; and (2) inclusion of a sensor to provide output of relative emissions, a device to continuously record the sensor output voltage, and an audible alarm that sounds when an increase in relative PM emissions above the setpoint is detected. Following initial adjustment of the system, the owner or operator may not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as described in the O, M, & M plan.

If a COM system is the selected monitoring alternative, the proposed standard requires installation and operation of a COM for each exhaust stack. The monitor would be required to meet all specifications in PS–1 in appendix B of 40 CFR part 60. The operational requirements in the NESHAP general provisions in 40 CFR part 63, subpart A would also apply. The calculation of 6-minute block averages of opacity readings is a monitoring requirement.

(b) *D/F and HCl Monitoring (Fabric Filter Inlet Gas Temperature).* The owner or operator of a scrap dryer/delacquering/decoating kiln, group 1 furnace or in-line fluxer equipped with a lime-injected fabric filter would be required to install and operate a continuous temperature measurement device consistent with the requirements for continuous monitoring systems in the general provisions to this part (40 CFR part 63, subpart A).

The temperature monitoring system would be required to record the temperature at the inlet to the fabric filter in 15 minute block averages and to calculate and record the average temperature for each 3-hour block period. The recorder response range would be required to include zero and 1.5 times the established operating parameter. Calibration drift would be required to be less than 2 percent of 1.5 times the established operating parameter. The relative accuracy would be required to be no greater than 20 percent. The reference method would be required to be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system, or an alternate reference subject to the approval of the Administrator.

(c) *D/F and HCl Monitoring (Lime Injection Rate).* Where lime-injected fabric filters are used to control emissions from scrap dryers/delacquering kilns/decoating kilns, in-line fluxers, and group 1 furnaces the proposed rule includes monitoring requirements for lime injection. Owners or operators would be required to inspect each feed hopper or silo every 8 hours to verify that lime is free-flowing and record the results of each inspection. If a blockage is found, the inspection frequency would increase to every 4 hours for the next 3 days. The owner or operator would be permitted to return to an 8-hour inspection interval if corrective action taken to remedy the cause of the blockage results in no additional blockage during the 3-day period.

Additional monitoring requirements would depend on which operating requirement alternative was chosen. Operators choosing to maintain the feeder setting at performance test levels would be required to record the feeder setting daily. Operators choosing to maintain the time rate (lb/hr) of lime injection would be required to install and operate a weight measurement device and determine and record the weight of lime added for each 15 minute block period. The weight measurement device would be required to have an accuracy of 1 percent and be calibrated once every 3 months. The operator would be required to use these data to calculate the lime injection rate for each 3-hour block period of operation.

Operators choosing to maintain the throughput based rate of lime addition (lb/ton of feed) would be required to install and operate a weight measurement device and determine and record the weight of lime added for each 15 minute block period. The operator would be required to use these data to calculate the weight of lime injected per ton of charge for each operating cycle or time period used in the performance test. The weight measurement device would be required to have an accuracy of ± 1 percent and be calibrated once every 3 months. The monitoring requirements described in section IV.D.3 of this document, *Other Operating Requirements, Monitoring Systems and Procedures: Feed/Charge Weight* would also apply.

3. Other Operating and Monitoring Requirements and Procedures

Operating requirements. The proposed rule includes operating requirements to ensure that capture equipment is properly designed and operated, to require that affected sources and emission units are clearly labeled, and to ensure that operating parameters do not change between performance tests in such a way as to allow emissions to exceed the levels measured under performance test conditions.

(a) *Capture Equipment Design.* As a monitoring requirement, to ensure continuous compliance with the applicable emission limits or standards, the operator would be required to inspect each capture, collection, and transport system annually to ensure that it is continuing to operate in accordance with ACGIH standards, and to record the results of each inspection.

(b) *Labeling.* As a monitoring requirement, operators would be required to inspect the labels monthly and verify that they are intact and legible, and to maintain records of this inspection.

(c) *Feed/Charge Weight.* All affected sources with throughput based emission limits (lb/ton, µg/Mg) are required to record the weight of each charge within ±1 percent, and to calibrate any weighing devices once every 3 months. This requirement is necessary to ensure operation within the emission limits and compliance with lime addition and flux injection parameters established during the performance test.

(d) *Afterburner Operating Temperature.* The owner or operator of an afterburner would be required to install and operate a continuous temperature measurement device consistent with the requirements for continuous monitoring systems in the general provisions to this part (40 CFR part 63, subpart A).

The temperature monitoring system would be required to record the afterburner temperature in 15 minute block averages and to calculate and record the average temperature for each 3-hour block period. The recorder response range would be required to include zero and 1.5 times the established operating parameter. Calibration drift would be required to be less than 2 percent of 1.5 times the established operating parameter. The relative accuracy would be required to be no greater than 20 percent. The reference method would be required to be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system, or an alternate reference subject to the approval of the Administrator.

The owner or operator would be required to further monitor afterburner performance by conducting an inspection of the afterburner at least once per year. All necessary repairs to the afterburner would have to be completed in accordance with the O, M, & M plan.

(e) *Total Reactive Chlorine Flux Injection Rate and Schedule.* To monitor the flux injection rate, the operator would be required to install and operate a device to continuously measure the weight of reactive flux injected or added to the affected source. The device would determine and record the weight in 15-minute block averages over the same operating cycle or time period used in the performance test. The accuracy of the device would be ±1 percent of the weight being measured and the operator would verify the calibration every 3 months.

The owner or operator would use the weight measurement to calculate and record the reactive flux injection rate using the same procedures as in the performance test. If a gaseous or liquid reactive flux other than chlorine is used, the proposed rule requires the owner or operator to record the type of flux and weight of each addition. The owner or operator also would record this information for each addition of solid reactive chloride flux. Using the same procedures as in the performance test, the owner or operator would calculate and record the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test.

(f) *Continuous Emission Monitoring Systems.* The proposed rule does not require the use of continuous emission monitors (CEMs). Operators may develop, submit and obtain approval for site-specific monitoring plans which may include the use of CEMs. The site-specific O,M,&M plan must include operating and monitoring requirements satisfactory to the permitting authority to ensure continuous compliance with the proposed standard.

If an HCl or THC continuous emission monitoring system is used, a monitor must be installed and operated for each exhaust stack. An HCl continuous emission monitoring system must be installed to meet PS 13 in appendix B to 40 CFR part 60. Performance Specification 13, ''Specifications and Test Procedures for Hydrochloric Acid Continuous Monitoring Systems in Stationary Sources'' was proposed April 19, 1996 (61 FR 17509). A THC continuous emission monitoring system must be installed to meet PS 8A in appendix B to 40 CFR part 60. Performance Specification 8A, ''Specifications and Test Procedures for Total Hydrocarbon Continuous Monitoring Systems in Hazardous Waste-burning Stationary Sources'' was proposed April 19, 1996 (61 FR 17358). The proposed standard requires that HCl and THC continuous emission monitoring systems meet all applicable requirements in the NESHAP general provisions in 40 CFR part 63, subpart A and the quality control requirements of appendix F to 40 CFR part 60.

If a PM CEM is used it must meet all applicable performance specifications, general provision requirements in 40 CFR part 63, subpart A, quality control requirements of appendix F to 40 CFR part 60, and in addition the use of the PM CEM must be validated in accordance with Method 301 of appendix A to 40 CFR part 63.

(g) *Scrap inspection Program.* If a site-specific monitoring plan includes the use of a scrap inspection plan the program must include operating and monitoring requirements satisfactory to the permitting authority to ensure continuous compliance with the proposed standard. The procedures and minimum requirements for scrap inspection programs are described in § 63.1509(o) of the proposed standard. The following elements must be included in a scrap inspection plan, at minimum:

(1) A proven method for collecting representative samples and measuring the oil and coatings content of scrap samples;

(2) A scrap inspector training program;

(3) An established correlation between visual inspection and physical measurement of oil and coatings content of scrap samples;

(4) Periodic physical measurements of oil and coatings content of randomly-selected scrap samples and comparison with visual inspection results;

(5) A system for assuring only acceptable scrap is charged to an affected group 1 furnace; and

(6) Recordkeeping requirements to document conformance with plan requirements.

(h) *Scrap Contamination Level Determination and Certification by Calculation.* Operators of group 1 furnaces dedicated to processing a distinct type of charge composed of scrap with a uniform composition (such as rejected product from a manufacturing process for which the owner or operator can document the coating to scrap ratio) may develop, submit and obtain approval of a site-specific O,M,&M plan that includes provisions for scrap contamination level determination and certification by calculation. Under such a plan, the operator would characterize the contaminant level of the scrap prior to a performance test. Following a performance test the operator would limit the charge to the furnace to scrap of the same composition used in the performance test (through charge selection or blending of coated scrap with clean charge). The site-specific O,M,&M plan would be required to include operating and monitoring requirements to ensure that no scrap with a contaminant level higher than that used in the successful performance test was charged.

E. Selection of Performance Test Methods and Requirements

1. Rationale for Performance Test Methods, Procedures and Surrogates

As a chemical class, THC contains a wide variety of organic compounds including HAPs and non-HAPs such as VOC. Both HAPs and non-HAP VOCs are destroyed by incineration. THC can be measured by Method 25A, ''Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer'' (40 CFR part 60, appendix A). This method applies to the measurement of total gaseous organic concentrations of vapors. The concentration is expressed in terms of propane (or other appropriate organic calibration gas) or in terms of carbon. Consequently, the Agency proposes to regulate emissions of organic HAPs using THC as a surrogate measure for the proposed emission limits. Because of the high potency of D/F at very low levels, separate measurements are needed and no surrogate is proposed for D/F emissions.

Method 23, ''Determination of Poly-Chlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans from Stationary Sources'' (40 CFR part 60, appendix A), would be used to measure emissions of (D/F). The procedures and factors in the EPA report, ''Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 update (EPA–625/3–89–016, NTIS No. PB 90–145756) would be used to convert measured D/F emissions to TEQ units.

Emissions of HCl would be measured using EPA Method 26A, ''Determination of Hydrogen Halide and Halogen Emissions from Stationary Sources-Isokinetic Method'' (40 CFR part 60, appendix A). Emissions of PM exiting the fabric filter or lime-injected fabric filter would be measured using EPA Method 5, ''Determination of Particulate Emissions from Stationary Sources'' in 40 CFR part 60, appendix A.

Visible emission observations by a certified observer were made during numerous emission tests using Method 9, ''Visual Determination of the Opacity of Emissions from Stationary Sources'' in 40 CFR part 60, appendix A. Thus, Method 9 is specified as an option for demonstrating continuous compliance with the PM emission standards for scrap shredders in the proposed rule. Scrap shredders are intermittently operated and Method 9 can be used to determine opacity during periods of operation. Method 9 is not included as an option for demonstrating continuous compliance with the PM emission standards for other affected sources, which are in continuous operation under normal conditions.

2. General Requirements

Following approval of a site-specific test plan (in accordance with § 63.7 of subpart A of this part), the proposed NESHAP requires an initial performance test for most affected sources and emission units to demonstrate compliance with applicable emission limitation(s). Performance tests (where required) would be conducted every 5 years to demonstrate continued compliance. The tests would be conducted according to the requirements in the NESHAP general provisions in 40 CFR part 63, subpart A, except as specified in the rule.

The owner or operator of an existing affected source would be provided 3 years from the effective date of the final rule to demonstrate compliance. A new or reconstructed source would be required to demonstrate compliance within 180 days following startup.

All monitoring devices are to be installed and calibrated prior to the initial performance test (or prior to the compliance date in the rule if a performance test is not conducted). The owner or operator would also be required to post a label on each affected source as to its proper classification (e.g., scrap shredder, chip dryer, scrap dryer/delacquering kiln/decoating kiln, dross cooler, in-line fluxer, sweat furnace, dross-only furnace, or group 1 or 2 furnace). The label would also include the applicable emission limit, operational standard, and control method (work practice or control device), the parameters to be monitored and the compliant value or range of each parameter. Emission units within secondary aluminum processing units would also be subject to labeling requirements which include the measured emission rate of all pollutants for which an emission limitation applies. New and reconstructed group 1 furnaces and in-line fluxers and emission units which are part of furnace process trains would be labeled to specify the other affected sources and/or emission units which make up the furnace process train. The visible marking of the furnaces is intended to enable management, workers, and enforcement personnel to easily identify the applicable work practice requirements, emission limitations and monitoring requirements. The owner or operator may change the initial furnace classification subject to approval by the applicable regulatory authority.

Each performance test would consist of three separate runs. For emission sources operating in a batch mode, each test run would be conducted over a minimum of one operating cycle of the process unit. In some cases, a longer sampling time may be required by the permitting authority upon review of the performance test plan. For sources that operate continuously, each test run would be conducted for the time period specified in the approved performance test plan. The emission (expressed in the units of the standard) for each test run would be determined. The arithmetic average of the emissions determined for the three test runs would be used to determine compliance.

The proposed standard allows the owner or operator to use historical data to establish operating parameters in addition to the results of a performance test provided that the full emission test reports are submitted, the test methods required by the rule have been used, all required parameters have been monitored, the process operation has been documented, and the owner or operator certifies that no changes have been made to the process or emission control equipment since the time of the report.

Where multiple affected sources and/or emission units are exhausted through a common control device, and if the emission limit for all such units is in units of kg/Mg (lbs/ton) of feed, compliance may be demonstrated if measured emissions do not exceed the combined emission limit for all units that exhaust through the stack. Performance tests conducted on control devices used to control multiple affected sources and/or emission units would be conducted at the maximum processing rate typical of normal operation of the affected sources and/or emission units. The performance test run period would span one complete operating cycle of all cocontrolled affected sources and/or emission units. Where the exhausts from multiple emission units within a secondary aluminum processing unit, that are not equipped with add-on air pollution control devices, are discharged through a common stack similar performance test period requirements are proposed.

3. Performance Tests Requirements and Options for Affected Sources and Emission Units

Scrap shredder. A PM performance test is required for each scrap shredder. The test would be conducted while the unit operates at the maximum processing rate typical of normal operation for the unit. During the test, the owner or operator would comply with the performance test requirements associated with either the COM or the bag leak detector monitoring option selected for a unit equipped with a fabric filter or a lime-injected fabric filter. These requirements are described in section IV.D.2 of this document, *Operating and Monitoring Requirements and Options for Affected Sources and Emission Units Equipped with Fabric Filters and Lime-injected Fabric Filters.* As an alternative, the owner or operator of a scrap shredder could choose to monitor visible emissions.

An owner or operator electing to monitor visible emissions would perform a Method 9 test of the same duration as, and simultaneously with, the Method 5 performance test and determine the average opacity for each fabric filter exhaust stack. The Method 9 performance test would be conducted by a certified observer according to the requirements of Method 9 and the NESHAP general provisions in subpart A of 40 CFR part 63. This test would be conducted simultaneously with any required initial or periodic Method 5 performance test.

Chip dryer. The owner or operator would conduct a performance test to demonstrate compliance with the THC and D/F emission limits for each chip dryer while the unit processes only unpainted/uncoated aluminum chips at the maximum production rate typical for the unit during normal operation. During the test, the owner or operator would measure the weight of feed to the chip dryer during each test run and determine the arithmetic average of the recorded measurements. Using the monitoring devices and procedures required by the proposed rule, the owner or operator would measure and record the afterburner operating temperature during each of the Method 23 test runs and determine the average of the recorded measurements for each test run. The arithmetic average of the three average test run temperatures would then be determined.

Scrap dryer/decoating kiln/delacquering kiln. The owner or operator of a scrap dryer/decoating kiln/delacquering kiln would conduct a performance test to demonstrate compliance with the THC, D/F, HCl, and PM emission limits while the affected source processes scrap containing the highest level of contaminants within the normal operating range. During the test, the owner or operator would determine and record the weight of feed to the unit for each test run and determine the arithmetic average of the recorded measurements. Using the monitoring devices and procedures required by the proposed rule, the owner or operator would measure and record the afterburner operating temperature, the injection rate of lime or other equivalent alkaline reagent, and the inlet temperature of the lime-injected fabric filter for each test run and determine the arithmetic average of each parameter of the recorded measurements, for each test run. The arithmetic average of the three values for each parameter would then be determined. The owner or operator also would comply with the performance test requirements associated with the monitoring option selected for a unit equipped with a fabric filter or a lime-injected fabric filter. These requirements are described in section IV.D.2 of this document, *Operating and Monitoring Requirements and Options for Affected Sources and Emission Units Equipped with Fabric Filters and Lime-injected Fabric Filters.*

Group 1 furnace. The proposed standard requires the owner or operator to conduct a performance test to demonstrate compliance with the PM emission limits and either the HCl emission limit or the HCl percent reduction requirement for each group 1 furnace. Owners or operators, except for those that process only clean charge materials would also be required to conduct a performance test to demonstrate compliance with the D/F emission limit. The test would be conducted while the unit operates at the maximum production rate, while charging scrap with the highest contaminant level within the range of normal operation for the furnace, and while performing all reactive fluxing operations at the maximum rate. During the performance test, the owner or operator would record the type of scrap charged and the amount of feed to the furnace for each test run. Using the required monitoring device (or procedure), the owner or operator also would measure and record the flux injection rate and determine the arithmetic average of the recorded measurements for each test run. The arithmetic average of the three averages would then be determined.

In addition, owners or operators of group 1 furnaces equipped with add-on control devices would be required to measure and record the injection rate and schedule of lime or other equivalent alkaline reagent for each test run and determine the average injection rate for each run. The arithmetic average of the three averages would then be determined. Owners or operators choosing to demonstrate compliance with the percent HCl removal standard would also be required to simultaneously measure the HCl present in the group 1 furnace exit at a point before lime or other alkaline reagent is introduced and determine the HCl percentage reduction achieved by the lime-injected fabric filter.

If an add-on control device is used, the owner or operator also would be required to comply with the performance test requirements associated with the monitoring option selected for a unit equipped with a fabric filter or a lime-injected fabric filter. These requirements are described in section IV.D.2 of this document, *Operating and Monitoring Requirements and Options for Affected Sources and Emission Units Equipped with Fabric Filters and Lime-injected Fabric Filters.*

If an add-on control device is not used, owners or operators would be required to monitor and record additional parameters in accordance with the site-specific O, M, & M plan developed in conjunction with and approved by the permitting authority.

Sweat furnace. A D/F performance test for each sweat furnace would be conducted while the furnace operates at the maximum production rate typical of normal operation for the furnace. During the test, the owner or operator would use the required monitoring device and procedure to measure and record the afterburner operating temperature for every 15-minute period of each test run and determine the arithmetic average of the recorded measurements for each test run. The average of the three averages would then be determined.

Dross-only furnace. A PM performance test would be conducted for each furnace using dross as the sole feedstock. During the test, the owner or operator would record the type of feed charged and the amount (weight) of the dross charged for each test run and determine the arithmetic average of the three weights. The owner or operator also would be required to comply with the performance test requirements applicable to a unit equipped with a fabric filter or a lime-injected fabric filter. These requirements are discussed in section IV.D.2 of this document, *Operating and Monitoring Requirements and Options for Affected Sources and Units Equipped with Fabric Filters and Lime-injected Fabric Filters.*

In-line fluxer. The proposed rule requires an HCl performance test to be conducted while the in-line fluxer operates at the maximum production rate and while performing all reactive fluxing operations at the maximum rate typical of normal operation for the unit. During the performance test, the owner or operator would record the molten aluminum throughput. During the test, the owner or operator would use the required monitoring device and procedure to calculate and record the reactive flux injection rate for each test run. In addition, the owner or operator would be required to determine the arithmetic average of the three averages for throughput and flux injection rate. The owner or operator would also comply with the performance test requirements associated with the monitoring option selected for a unit equipped with a fabric filter or a lime-injected fabric filter. These requirements are described in section IV.D.2 of this document, *Operating and Monitoring Requirements and Options for Affected Sources and Emission Units Equipped with Fabric Filters and Lime-injected Fabric Filters.*

Rotary dross cooler. A PM performance test would be conducted for each rotary dross cooler while operating at the maximum production rate typical of normal operation of the unit. During the performance test, the owner or operator would comply with the performance test requirements associated with the monitoring option selected for a unit equipped with a fabric filter or a lime-injected fabric filter. These requirements are described in section IV.D.2 of this document, *Operating and Monitoring Requirements and Options for Affected Sources and Emission Units Equipped with Fabric Filters and Lime-injected Fabric Filters.*

F. Notification, Recordkeeping and Reporting Requirements

The proposed standard would incorporate all requirements of the NESHAP general provisions (40 CFR part 63, subpart A) except as specified in the proposed standard. The COM requirements in the general provisions would apply if the owner or operator elects as a monitoring option, to install and operate a COM to measure and record opacity from the exhaust stacks of a fabric filter or a lime-injected fabric filter.

The general provisions (40 CFR part 63, subpart A) include requirements for notifications of applicability; intention to construct or reconstruct a major source, the date construction or reconstruction commenced, the anticipated date of startup and the actual date of startup; special compliance obligations for new sources; date of performance test (including opacity and visible emissions observations, if applicable); notification a COM will be used to comply with an opacity standard, if applicable; notifications for sources with continuous monitoring systems (CMS), as provided in § 63.9(g) of this chapter; and initial and annual notification of compliance status.

In addition to the information required by the NESHAP general provisions (40 CFR part 63, subpart A), the notification of compliance status must include for each affected source: the approved site-specific test plan and a complete performance test report, performance evaluation test results for each CMS (including a COM or CEM), unit labels (e.g., process type or furnace classification), and compliant operating parameter value or range with supporting documentation. If applicable, owner or operator also must include design information and supporting documentation demonstrating compliance with requirements (if applicable) for capture/collection systems, bag leak detection systems, and the 1-second residence time requirement for afterburners used to control emissions from a scrap dryer/delacquering/decoating kiln subject to alternative emission standards. All facilities would be required to submit the operation, maintenance, and monitoring plan and startup, shutdown, and malfunction plan. The notification of compliance status also would include (if applicable), the approved site-specific monitoring plan for each group 1 furnace with no add-on air pollution control device; or other site-specific monitoring plan. The notification of compliance status must be signed by the responsible official who must certify its accuracy. Provisions also are included in the proposed standard to eliminate duplicative submissions.

The startup, shutdown, and malfunction plan would be prepared according to the requirements in § 63.6(e) of the NESHAP general provisions. This plan would specify the procedures to be followed to minimize emissions during a startup, shutdown, or malfunction and a program of corrective action for malfunctioning process and air pollution control equipment. The proposed standard requires that the plan also include procedures to determine and record the cause of the malfunction and the time the malfunction began and ended. A semiannual report to EPA is required when a reportable event occurs and the steps in the plan were not followed.

The O, M, & M plan for each affected source, emission unit and control system would be submitted to the permitting authority as part of the initial notification of compliance status. Each plan would include the applicable operating requirements for each affected source and emission unit; process and control device parameters to be monitored, along with established operating levels or ranges; a monitoring schedule with monitoring procedures; procedures for the proper operation and maintenance of each affected source and emission unit, add-on air pollution control device, and monitoring device or system; maintenance schedule; and corrective action procedures to be taken in the event of an excursion or exceedance (including procedures to determine the cause of the excursion or exceedance, the time the excursion began and ended, and for recording the actions taken to correct the cause of the excursion or exceedance). The plan also must document the work practices and pollution prevention measures used to achieve compliance with the applicable emission limits for a group 1 furnace not equipped with an add-on air pollution control device.

Examples of procedures that might be used to determine the cause of an excursion from an operating parameter level or range for an afterburner include inspecting burner assemblies and pilot sensing devices for proper operation and cleaning; adjusting primary and secondary chamber combustion air; inspecting dampers, fans, blowers, and motors for proper operation; and shutdown procedures. Examples of procedures that might be used for bag leak detection systems include inspecting the fabric filter for air leaks, torn or broken filter elements, or any other defect that may cause an increase in emissions; sealing off defective filter bags or filter media, or otherwise repairing the control device; replacing defective bags or filter media or otherwise repairing the control device; sealing off a defective compartment in the fabric filter; and shutting down the process producing the emissions.

The owner or operator of a group 1 furnace not equipped with add-on air pollution control devices would be required to submit a site-specific monitoring plan that addresses monitoring and compliance requirements for PM, HCl, and D/F emissions. The plan would be developed in consultation with the applicable permitting authority and submitted for review as part of the O, M, & M plan. The provisions of the plan must ensure continuing compliance with applicable emission limits and demonstrate, based on documented test results, the relationship between emissions of PM, HCl, and D/F and the proposed monitoring parameters for each pollutant. The plan must include provisions for complying with applicable operating and monitoring requirements (unit labeling and measurements of feed/charge and flux weight). If a CEM or COM is used, provisions must be included to comply with installation, operation, maintenance, and quality assurance requirements of the NESHAP general provisions (40 CFR part 63, subpart A). If a scrap inspection program for monitoring the scrap contaminant level of furnace charge materials is included, the site-specific monitoring plan must include provisions for the demonstration and implementation of the program to meet the requirements in the proposed standard. These requirements are discussed in section IV.E.3 of this document, *Other Operating Requirements, Monitoring Systems and Procedures: Scrap inspection program*.

The owner or operator would submit a semiannual excess emissions/progress report, which would include each excursion from compliant operating parameters or measured emissions exceeding an applicable limit or standard; inconsistencies between actions taken during a startup, shutdown or malfunction and the procedures in the startup, shutdown and malfunction plan; failure to initiate corrective action within 1-hour for a bag leak detection alarm, a 6-minute average exceeding 5 percent opacity or an observation of visible emissions from a scrap shredder; an excursion of a compliant process or operating parameter value or range; or any event where an affected source was not operated according to the requirements of the rule. If no excess emissions occurred in the reporting period, the owner or operator would be required to submit a report stating that no excess emissions had occurred. The owner or operator also would submit the results of any performance test conducted during the reporting period and semi-annual certifications attesting to compliance with restrictions on feedstock and other operating conditions applicable to each chip dryer, dross-only furnace, sidewell group 1 furnace with add-on air pollution control devices, group 1 melter/holder without add-on air pollution control devices, and group 2 furnace.

In addition to the recordkeeping requirements in 40 CFR 63.10 of the NESHAP general provisions, the owner or operator would be required to maintain records of information needed to determine compliance. Additional recordkeeping requirements are given in Table 11.

The NESHAP general provisions require that all records be maintained for at least 5 years from the date of each record. The owner or operator must retain the records onsite for at least 2 years but may retain the records offsite for the remaining 3 years. The files may be retained on microfilm, microfiche, on computer disks, or on magnetic tape. Reports may be made on paper or on a labeled computer disk using commonly available and compatible computer software.

TABLE 11.—RECORDKEEPING REQUIREMENTS

Affected source/emission unit/control device/monitoring system	Requirement
Bag leak detection systems	Number of total operating hours for the affected source/emission unit during each 6-month reporting period, time of each alarm, time corrective action was initiated and completed, and description of cause of alarm and corrective action taken.
COM	Opacity data, times when 6-minute average exceeds 5 percent, time of exceedance, time corrective action was initiated and completed, and description of cause of emissions and corrective action taken.
Scrap shredders monitored by visible emissions observations.	Visible emission data, times when any visible emissions occurred during daily test, time of excursion, time corrective action was initiated and completed, and description of cause of emissions and corrective action taken.
Affected sources/Emission units subject to throughput based emission limits.	Records of feed or charge weight measurements for each operating cycle or time period used in performance test.
Lime injected fabric filters subject to temperature limits.	Inlet temperature data, times when 3-hour block average exceeds operating parameter value by 25°F, description of cause of excursion and corrective action taken.
Lime injected fabric filters	Lime blockage inspection records and either: (1) daily inspections of feeder settings and any deviation from established setting with cause of deviation and corrective action taken or (2) 3-hr block average lime weight, injection rate (lb/hr) and schedule with supporting calculations, times when 3-hour block average rate or schedule falls below established value, description of cause of excursion and corrective action taken or (3) lime weight for operating cycle or time period used in performance test, injection rate (lb/ton) and schedule with calculations, times when rate or schedule falls below established value, description of cause of excursion and corrective action taken.
Group 1 furnaces and in-line fluxers where reactive flux is used.	Weight of gaseous or liquid flux injected, total reactive chlorine flux injection rate and calculations (including identity, weight, composition of all reactive fluxing agents), times flux rate exceeds established value, description of cause of excursion and corrective action taken.

TABLE 11.—RECORDKEEPING REQUIREMENTS—Continued

Affected source/emission unit/control device/monitoring system	Requirement
Afterburners	Operating temperature data, times 3-hour block average temperature falls below established value, description of excursion and corrective action taken and annual inspections.
Group 1 furnace without add-on air pollution control device.	Site-specific monitoring plan with records to document conformance.
Group 1 sidewell furnace	Operating logs documenting conformance with operating standards for maintaining molten metal level and adding reactive flux only to the sidewell or furnace hearth equipped with controls.
Chip dryer, dross-only furnace, and group 1 melter/holder without air pollution control device processing clean charge.	Records of all charge materials.
Group 2 furnace	Records of all charge materials and fluxing materials or agents.
All affected sources/emission units	Monthly inspections for unit labeling, current copy of all required plans with revisions, records of any approved alternative monitoring or test procedure.
Capture/collection systems	Annual inspections.

V. Summary of Impacts of Proposed Standards

The EPA analyzed the impacts of the proposed standards by developing model processes and model plants based on site-specific information contained in responses to the ICR and voluntary follow up questionnaires, coupled with data obtained during site visits and emission tests. These model processes were then combined to form eight model plants used as the basis for environmental, cost, economic, and other regulatory impact analyses. Additional information on the model processes and model plants is included in the docket. (Docket Item II–B–1. Memorandum. J. Santiago, EPA:MICG, to K. Durkee, EPA:MICG. (Date) Model Processes and Control Device Options for the Secondary Aluminum Industry.)

A. Air Quality Impacts

As shown in Table 12, emission sources in the estimated 86 major source secondary aluminum production plants that would be subject to the NESHAP emit approximately 28,600 Mg/yr (31,500 tpy) of HAPs and other pollutants at the current level of control. Of these emissions, 16,300 Mg/yr (18,000 tpy) are HAPs. The EPA estimates that implementation of the NESHAP would reduce all pollutants by 16,700 Mg/yr (18,300 tpy). Nationwide HAP emissions would be reduced by about 11,300 Mg/yr (12,500 tpy).

TABLE 12.—NATIONWIDE ANNUAL BASELINE EMISSIONS AND EMISSION REDUCTIONS

Pollutant	Baseline emissions (Mg/yr)	Emission reduction (Mg/yr)	Baseline emissions (tpy)	Emission reduction (tpy)
THC [1]	3,782		4,169	
D/F	0.81 kg/yr	0.71 kg/yr	1.79 lb/yr	1.55 lb/yr.
HCl	15,365	11,300	16,902	12,457.
Cl_2	996		1,098	
HAP Metals	58.4	36.3	64.4	40.
PM	8,508	5,331	9,378	5,864.
Total:				
HAPs	16,420	11,336	18,065	12,496.
PM	8,508	5,331	9,378	5,864.
HAPS and other pollutants	28,620	16,524	31,548	18,215.

[1] THC is a surrogate for organic HAPs.

No reduction in THC emissions is estimated because all sources with a THC emission limit for which an afterburner would be required are already equipped with this MACT-level control.

The estimated emission reductions are felt to represent the minimum that would be achieved by the proposed rule since they are based on a reduction in baseline emissions to a level equal to the proposed emission limit. In reality, if emission control equipment is installed to achieve compliance with the proposed rule, emissions would likely be reduced to a level below the emission limit and the actual emission reductions would be larger than the estimates. In addition, emission reductions would also be expected for other pollutants for which there are no specific emission limits. Although these potential emission reductions were not quantified, emission controls installed to reduce HCl emissions are likely to also reduce Cl_2 emissions, the lime added or injected to fabric filters would reduce fluoride as well as chloride emissions, and fabric filters installed to meet PM emission limits also would reduce HAP metal emissions. For example, emission test data indicate that a fabric filter will reduce HAP metal emissions by approximately the same amount as PM emissions. If the same reduction (61.4 percent from the baseline, taking into account that some sources already have these controls) is applied to HAP metal emissions, an emission reduction of about 39.5 tpy from the estimated baseline level of 64.4 tpy would be achieved. Additional information on nationwide and model plant air quality impacts is included in the docket. (See Docket item II–B–16. Memorandum. M. Wright, Research Triangle Institute, to J. Santiago, EPA:MICG. Regulatory Impacts for Secondary Aluminum MACT Standards. September 17, 1998.)

B. Cost Impacts

Nationwide total capital costs are estimated at $148 million with total annualized costs of $68 million/yr. Estimates of total capital and total annualized costs for each model plant are shown in Table 13.

TABLE 13.—ESTIMATED CAPITAL AND ANNUALIZED COSTS BY MODEL PLANT

Model plant	Total capital costs (thousands $)	Total annualized costs (thousands $/yr)
1	1,390	541
2	1,660	574
3	1,833	702
4	2,944	1,203
5	2,159	1,400
6	3,731	2,142
7	198	134
8	0	0

The cost estimates are based on cost algorithms from the ''OAQPS Control Cost Manual'' (EPA 450/3–90–006, January 1990) applied to the model process control devices. The estimates include control device costs, auxiliary equipment, and direct and indirect installation costs, but do not include costs associated with retrofit situations or monitoring systems. The nationwide annual costs for monitoring, reporting and recordkeeping are estimated at $5.1 million/yr, for the first three years. Additional information on the model plants and cost estimates are included in the docket. (See Docket item II–B–16. Memorandum. M. Wright, Research Triangle Institute, to J. Santiago, EPA:MICG. Regulatory Impacts for Secondary Aluminum MACT Standards. September 17, 1998.)

C. Economic Impacts

The economic impact analysis (EIA) provides an estimate of the anticipated regulatory impacts of the Secondary Aluminum National Emission Standard for Hazardous Air Pollutants. The goal of the EIA is to determine the primary market impacts of the regulation on the secondary aluminum industry including estimated changes in market price, market production, industry annual revenues, and potential facility closures. Secondary market impacts such as potential labor market, energy input, and international trade impacts are also analyzed. The impact of the regulation on small secondary aluminum producers is also evaluated.

The secondary aluminum industry includes facilities primarily engaged in recovering aluminum from new and used scrap and from dross and facilities engaged in producing aluminum sheet, plate, and foil. Establishments in the secondary aluminum industry produce products classified primarily in Standard Industrial Classification (SIC) codes 3341 Secondary Smelting and Refining of Nonferrous Metals and 3353 Aluminum Sheet, Plate, and Foil. The specific processes regulated by the secondary aluminum maximum achievable control technology (MACT) standard include crushing and shredding; drying; delaquering; furnace operations; in-line fluxers; dross-only furnaces; sweating furnaces; and dross cooling.

In recent years, the secondary aluminum industry has become a major market force in the domestic aluminum industry. The recycling of scrap provides a source of aluminum that not only helps the aluminum industry to maintain growth, but also helps conserves energy and slows the depletion of bauxite sources. For many applications, secondary aluminum is comparable to primary aluminum. However, for certain specialized applications only primary aluminum is employed. The secondary aluminum market is highly competitive with numerous sellers, none of which is large enough to influence market price. Primary aluminum producers are typically producers of secondary aluminum also. There is competition between secondary and primary aluminum producers for those grades of metals which the secondary smelters produce.

Although the number of facilities affected by this regulation is not known with precision, the U.S. Department of Commerce's Bureau of Census reports companies with aluminum inventory. In 1994, those producers reporting inventories included 12 primary aluminum producers, 141 companies unaffiliated with primary producers reported inventories, and 25 smelters. The section 114 information collection request (ICR) reports collected for this regulation from secondary aluminum producers indicates that 134 facilities are potentially affected by this regulation. The secondary aluminum facilities are dispersed throughout the country in 36 different states with the largest concentration of facilities in California, Ohio, Indiana, Illinois, Tennessee, Kentucky, and Pennsylvania. Approximately 28 percent of the domestic facilities producing secondary aluminum are owned by companies that are classified as small businesses.

1. Control Cost Estimates and Analytical Approach

Eight different model plants were developed to estimate the facility and nationwide annualized and capital emission control costs for this regulation. Table 14 presents the capital and annualized costs for each of the model plants, as well as estimates of the nationwide costs. The capital costs for this regulation are estimated to be approximately $147.9 million while national annualized costs of approximately $73 million are anticipated. These annualized costs include the burden costs, or costs of monitoring, reporting, and recordkeeping. (All values are shown in 1994 dollars.)

TABLE 14.—MODEL PLANT AND NATIONWIDE CONTROL COST ESTIMATES SECONDARY ALUMINUM NESHAP

[Thousands of 1994 dollars]

Model plant/nationwide	Capital costs	Annualized costs
Model Plant 1	$43,094	$16,770
Model Plant 2	16,603	5,740
Model Plant 3	12,832	4,911
Model Plant 4	26,492	10,829
Model Plant 5	21,587	14,001
Model Plant 6	26,119	14,992
Model Plant 7	1,188	807
Model Plant 8	0	0
Burden Costs	....	5,142
Nationwide Totals	147,915	73,191

Since capital costs relate to emission control equipment that will be utilized over a period of years, this cost is annualized or apportioned to each year of the anticipated equipment life. The annual capital costs include annual depreciation of equipment plus the cost of capital associated with financing the capital equipment over its useful life. A seven percent discount rate or cost of capital is assumed for this regulation. The annualized capital costs are combined with annual operating and maintenance costs, recordkeeping, monitoring, and reporting costs, and other annual costs to compute the total annualized costs to comply with the proposed rule.

A market model was utilized in the EIA to estimate the impact of the regulation on the secondary aluminum industry and other related markets. For purposes of the EIA, a partial equilibrium microeconomic model of the secondary aluminum industry was developed that assumes the supply of secondary aluminum will decrease as a result of the increased costs of emission controls from levels that would have occurred absent the regulation. The decrease in supply is anticipated to increase market price and decrease the market equilibrium quantity of secondary aluminum produced domestically.

2. Economic Impacts

Table 15 presents primary and secondary market impacts estimated for the Secondary Aluminum NESHAP. Primary market impacts include estimated changes in price, production, industry revenues, and potential facility closures. Secondary market impacts relate to potential employment losses, potential decreases in exports, and increases in imports.

TABLE 15.—PRIMARY AND SECONDARY MARKET IMPACTS SECONDARY ALUMINUM NESHAP

[Thousands of 1994 dollars]

	Estimated impacts
Primary Market Impacts:	
Price Increase (%)	0.75
Production Decrease (%)	(0.49)
Industry Revenues-Value of Domestic Shipments (%)	0.25
Potential Facility Closures	0–1
Secondary Market Impacts:	
Labor Market—Potential Employee Reductions (number of workers) Percent decrease	117 (0.49)
International Trade:	
Exports (%)	(0.25)
Imports (%)	1.75

Decreases are shown in brackets ( ).

In general, the economic impacts of this regulation are expected to be minimal with price increases and production decreases of less than one percent. A market price increase of 0.75 percent and domestic production decrease of 0.49 percent are predicted. Revenues or the value of domestic shipments for the industry are expected to increase by 0.25 percent. The increase in the value of shipments results because the price elasticity of demand for secondary aluminum is inelastic. Products that demonstrate inelastic price elasticity of demand are characterized by larger percentage price increases than production percentage decreases occurring with price increases. For products with inelastic demand, a price increase leads to increases in revenue or value of shipments. Individual facilities within the industry may experience revenue increases or decreases, but on average the industry revenues are anticipate to increase slightly with this regulation. Potentially, one facility may close as a result of the regulation.

Approximately 117 workers may face employment losses as a result of the regulation. Exports of secondary aluminum products to other countries are expected to decline by 0.25 percent while imports of secondary aluminum are expected to increase 1.75 percent.

D. Non-air Health and Environmental Impacts

Secondary aluminum plants are subject to effluent guidelines and standards set pursuant to the Federal Water Pollution Control Act. The EPA's effluent guidelines for secondary aluminum smelting (40 CFR part 421, subpart C) apply to conventional pollutants and/or fluoride, ammonia, aluminum, copper, lead, and zinc from sources that include wet air pollution control systems for scrap drying, scrap screening and milling, dross washing, demagging, delacquering, and casting cooling. For several sources, either no discharge of process wastewater is allowed (requiring recycling) or none (zero) of the specified pollutants are allowed in the discharge.

The proposed NESHAP is based on air pollution control systems which are of the dry type (e.g., afterburners and fabric filters), and there are no water pollution impacts resulting from their use. Solid waste generated by fabric filters in the form of particulate matter (including HAP metals and lime from fabric filters) is typically disposed of by landfilling. With the addition of fabric filters and lime conditioned fabric filters, the amount of solid waste is expected to increase by about 104,235 Mg/yr (114,900 tpy) nationwide. The increase in solid waste is estimated as the sum of the annual reduction in PM emissions and the annual increase in the use of lime in lime-injected fabric filters. (See Docket item II–B–16. Memorandum. M. Wright, Research Triangle Institute, to J. Santiago, EPA:MICG. Regulatory Impacts for Secondary Aluminum MACT Standards. September 17, 1998.)

Dioxins and furans (D/F) and HAP metals (lead, cadmium, and mercury) have been found in the Great Lakes and other water bodies, and have been listed as pollutants of concern due to their persistence in the environment, potential to bioaccumulate, and toxicity to humans and the environment. (See Docket item II–A–3. Deposition of Air Pollutants to the Great Waters: First Report to Congress. EPA:OAQPS. EPA–453/R–93–055. May 1994. pp. 18–21.) Implementation of the NESHAP would aid in reducing aerial deposition of these emissions.

As acid gases, HCl and Cl_2 contribute to the formation of acid rain. In addition, Cl_2 is a very reactive element and combines easily with a variety of organic compounds; these chemical reactions constitute the primary mechanism for the destruction of ozone in the stratosphere. Both HCl and Cl_2 are very corrosive and can cause damage to building materials such as limestone, plant equipment, and to all types of metals and textiles. HCl and Cl_2 also are phototoxicants, which can be injurious to crops and plants including tomatoes, sugar beets, alfalfa, tobacco, blackberries, radishes, certain trees (box elder, crab apple, pin oak, sugar maple, and sweet gum), and certain flowers (roses, sunflowers, and zinnias). (See Docket item II–I–2. Chlorine and Hydrogen Chloride. National Academy of Sciences. Washington, DC. 1976. pp. 85–86, 93, 145–53, 161, 166.) Ambient concentrations of these HAPs would be reduced substantially by the proposed NESHAP.

Occupational exposure limits under 29 CFR part 1910 are in place for each of the regulated HAPs (and surrogates) except D/F. The National Institute for Occupational Safety and Health recommends an exposure level for D/F at the lowest feasible concentration. (See Docket item II–I–110, NIOSH Recommendations for Occupational Safety and Health: Compendium of Policy Documents and Statements. National Institute for Occupational Safety and Health. January 1992. p. 124.) The proposed NESHAP would reduce emissions, and consequently, occupational exposure levels for plant employees.

E. Energy Impacts

Operating fabric filters and afterburners requires the use of electrical energy to operate fans that move the gas stream. The additional electrical energy requirements are estimated at 116 million kilowatt hours per year (kWh/yr), or 418 terajoules per year (TJ/yr), over current requirements. Afterburners may also use natural gas as fuel. Approximately 325,500 kilocubic feet per year (kft^3/yr) or 322 billion Btu/yr (340 TJ/yr) of additional natural gas would be required.

The increased energy requirements for plants will result in an increase in utility emissions as more energy is generated. Nationwide emissions of PM, sulfur dioxide (SO_2), and nitrogen oxides (NO_X) from electric power plants are estimated to increase by 9.8 Mg/yr (10.8 tpy), 393 Mg/yr (433 tpy), and 197 Mg/yr (217 tpy), respectively. (See Docket item II–B–16. Memorandum. M. Wright, Research Triangle Institute, to J. Santiago, EPA:MICG. Regulatory Impacts for Secondary Aluminum MACT Standards. September 17, 1998.)

VI. Request for Comments

The EPA seeks full public participation in arriving at its final decisions and encourages comments on all aspects of this proposal from all interested parties. In addition, the Agency is specifically requesting comments on the applicability section of the rule. As proposed, aluminum die casters (SIC 3363) and aluminum foundries (SIC 3365) are specifically exempted from the requirements of the rule. The Agency is aware that some operations at these locations may include melting, refining, and some level of reactive fluxing as well as chip drying. The Agency requests data and comment regarding the extent of these secondary aluminum operations at these facilities and the need for emission controls under this NESHAP. The Agency also specifically requests information regarding the extent of small businesses in these two SIC codes which have secondary aluminum operations and which are also major sources as defined in the Clean Air Act. The Agency also requests information regarding the number of large businesses which operate foundry or die casting processes and which are major sources either independently or due to co-location (e.g., foundries or die casters located at automobile plants). The Agency is also requesting information or estimates regarding the quantities of HAP emissions from both major sources and area sources within these SIC codes. Full supporting data and detailed analyses should be submitted with all comments to allow the EPA to make maximum use of the comments.

All comments should be directed to the Air and Radiation Docket and Information Center, Docket No. A–92–61 (see **ADDRESSES**). Comments on this notice must be submitted on or before the date specified in **DATES**.

Commentors wishing to submit proprietary information for consideration should clearly distinguish such information from other comments and clearly label it ''Confidential Business Information'' (CBI). Submissions containing such proprietary information should be sent directly to the following address, and not to the public docket, to ensure that proprietary information is not inadvertently placed in the docket: Attention: Mr. Juan Santiago, c/o Ms. Melva Toomer, U.S. EPA Confidential Business Information Manager, OAQPS (MD–13), Research Triangle Park, North Carolina 27711. Information covered by such a claim of confidentiality will be disclosed by EPA only to the extent allowed and by the procedures set forth in 40 CFR part 2. If no claim of confidentiality accompanies the submission when it is received by EPA, it may be made available to the public without further notice to the commentor.

VII. Administrative Requirements

A. Docket

The docket is intended to be an organized and complete file of the administrative records compiled by EPA. The docket is a dynamic file, because material is added throughout the rulemaking development. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the proposed and promulgated standards and their preambles, the contents of the docket will serve as the record in the case of judicial review. (See section 307(d)(7)(A) of the Act.)

B. Public Hearing

A public hearing will be held, if requested, to discuss the proposed standards in accordance with section 307(d)(5) of the Act. If a public hearing is requested and held, EPA will ask clarifying questions during the oral presentation but will not respond to the presentations or comments. Written statements and supporting information will be considered with equivalent weight as any oral statement and supporting information subsequently presented at a public hearing. Persons wishing to attend or to make oral presentations or to inquire as to whether or not a hearing is to be held should contact the EPA (see **FOR FURTHER INFORMATION CONTACT**). To provide an opportunity for all who may wish to speak, oral presentations will be limited to 15 minutes each.

Any member of the public may file a written statement on or before April 12, 1999. Written statements should be addressed to the Air and Radiation Docket and Information Center (see **ADDRESSES**), and refer to Docket A–92–61. A verbatim transcript of the hearing and written statements will be placed in the docket and be available for public inspection and copying, or be mailed upon request, at the Air and Radiation Docket and Information Center.

C. Executive Order 12866

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the EPA must determine whether the regulatory action is ''significant'' and therefore subject to review by the Office of Management and Budget (OMB), and the requirements of the Executive Order. The Executive Order defines ''significant regulatory action'' as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligation of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, the EPA has determined that this regulatory action is not ''significant'' because none of the listed criteria apply to this action. Consequently, this action was not submitted to OMB for review under Executive Order 12866.

D. Executive Order 13045

Executive Order 13045 applies to any rule that EPA determines (1) ''economically significant'' as defined under E.O. 12866, and (2) the environmental health or safety risk addressed by the rule has a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonable alternatives considered by the Agency.

This proposed rule is not subject to E.O. 13045, entitled, ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997), because it is not an economically significant regulatory action as defined by E.O. 12866.

E. Enhancing the Intergovernmental Partnership Under Executive Order 12875

Under Executive Order 12875, EPA may not issue a regulation that is not required by statute and that creates a mandate upon a State, local or tribal government, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by those governments, or EPA consults with those governments. If EPA complies by consulting, Executive Order 12875 requires EPA to provide to the Office of Management and Budget a description of the extent of EPA's prior consultation with representatives of affected State, local and tribal governments, the nature of their concerns, copies of any written communications from the governments, and a statement supporting the need to issue the regulation. In addition, Executive Order 12875 requires EPA to develop an effective process permitting elected officials and other representatives of State, local and tribal governments ''to provide meaningful and timely input in the development of regulatory proposals containing significant unfunded mandates.''

Today's rule implements requirements specifically set forth by the Congress in 42 U.S.C. 7410 without the exercise of any discretion by EPA. Accordingly, the requirements of section 1(a) of Executive Order 12875 do not apply to this rule.

F. Executive Order 13084: Consultation and Coordination With Indian Tribal Governments

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments, or EPA consults with those governments. If EPA complies by consulting, Executive Order 13084 requires EPA to provide to the Office of Management and Budget, in a separately identified section of the preamble to the rule, a description of the extent of EPA's prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected officials and other representatives of Indian tribal governments ''to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities.''

Today's rule implements requirements specifically set forth by the Congress in 42 U.S.C. 7410 without the exercise of any discretion by EPA. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this rule.

G. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative with other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that this rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, or tribal governments, in the aggregate, or the private sector in any one year. In addition, EPA has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments because it contains no regulatory requirements that apply to such governments or impose obligations upon them. Therefore, this proposed rule is not subject to the requirements of sections 202 and 205 of the UMRA.

H. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA) provides that, whenever an agency promulgates a final rule under 5 U.S.C. (MARK) 553, after being required to publish a general notice of proposed rulemaking, an agency must prepare a final regulatory flexibility analysis unless the head of the agency certifies that the final rule will not have a significant economic impact on a substantial number of small entities. Pursuant to section 605(b) of the Regulatory Flexibility Act, 5 U.S.C. 605(b), the Administrator certifies that this rule will not have a significant impact on a substantial number of small entities.

The EPA analyzed the potential impact of the rule on small entities. The EPA received responses to an information collection request from 135 facilities producing products in SIC's 3341 (secondary smelting and refining of nonferrous metals) and 3353 (aluminum sheet, plate, and foil);

however, it is thought that there are in excess of 400 facilities which produce these products. To define the small business entities, the 135 facilities were matched with their parent companies and it was determined that 33 of these companies meet the Small Business Administration definition of a small business entity (less than 750 employees).

The analysis of small business impacts for the secondary aluminum industry focused on a comparison of compliance costs as a percentage of sales (cost/sales ratio). Cost to sales ratio refers to the change in annualized control costs divided by the sale revenues of a particular good or goods being produced in the process for which additional pollution control is required. It can be estimated for either individual firms or as an average for some set of firms such as affected small firms. While it has different significance for different market situations, it is a good rough gauge of potential impact. If costs for the individual (or group) of firms are completely passed on to the purchasers of the good(s) being produced, it is an estimate of the price change (in percentage form after multiplying the ratio by 100). If costs are completely absorbed by the producer, it is an estimate of changes in pretax profits (in percentage form after multiplying the ratio by 100). The distribution of costs to sales ratios across the whole market, the competitiveness of the market, and profit to sales ratios are among the obvious factors that may influence the significance of any particular cost to sales ratio for an individual facility.

Due to the number of facilities and variety of processes used in the affected industry, model plants were developed to categorize facilities based on possible combinations of processes that are performed. These model plant categories were used to estimate applicable emission control costs, including the costs of monitoring, reporting, and record keeping. Eight model plants were created and annual compliance costs were calculated for each one. The individual facilities were then assigned to the model plant that most closely fit their process structure, and the annual compliance cost for that model plant was used in calculating the company's cost/sales ratio.

Two alternative approaches were used to estimate the sales revenues for the affected small businesses. If actual sales data were available, these data were used to compute cost to sales ratios for affected entities. In cases where the actual sales data were unavailable, model plant revenues were estimated based upon the estimated model plant annual production and the average 1994 price of secondary aluminum alloy A–380. Cost to sales data were developed using actual revenue data where available and model plant estimate revenues for each of the 33 small businesses. Cost to sales ratios based on model plant data yield ratios of less than 1 percent for each model plant and range from 0.02 percent to 0.97 percent for model plant 8 and model plant 1, respectively. A summary of the cost to sales ratios for the affected small secondary aluminum producers using model plant data and actual company annual revenues is shown in Table 16 below. As depicted in Table 16, the majority of affected small businesses had cost to sales ratios below 1 percent. Ten companies had cost to sales ratios above 1 percent. Of these ten companies, only one had cost to sales above 3 percent. A cost to sales ratio above 3 percent is an indicator that this small business may experience a significant economic impact as a result of this regulation. Based upon this analysis, the EPA concludes that this regulation will not result in a significant economic impact for a substantial number of small entities. Only one of the 33 small entities is anticipated to experience significantly adverse economic impacts as a result of this regulation.

TABLE 16.—COMPANY-SPECIFIC COST SALES RATIOS

Cost/sales ratio	Number of small companies in range
0.00%–0.99%	23
1.00%–1.99%	7
2.00%–2.99%	2
>3.00%	1
Mean cost/sales ratio = 0.919%	
Total	33

I. Paperwork Reduction Act

The information collection requirements in this proposed rule have been submitted for approval to OMB under the requirements of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* An Information Collection Request (ICR) document has been prepared by EPA (ICR No. 1894.01), and a copy may be obtained from Sandy Farmer, OPPE Regulatory Division, U.S. Environmental Protection Agency (2136), 401 M Street SW, Washington, DC 20460, or by calling (202) 260–2740.

The proposed information requirements include mandatory notifications, records, and reports required by the NESHAP General Provisions (40 CFR part 63, subpart A). These information requirements are needed to confirm the compliance status of major sources, to identify any nonmajor sources not subject to the standards and any new or reconstructed sources subject to the standards, to confirm that emission control devices are being properly operated and maintained, and to ensure that the standards are being achieved. Based on the recorded and reported information, EPA can decide which plants, records, or processes should be inspected. These recordkeeping and reporting requirements are specifically authorized under section 114 of the Act (42 U.S.C. 7414). All information submitted to EPA for which a claim of confidentiality is made will be safeguarded according to Agency policies in 40 CFR part 2, subpart B. (See 41 FR 36902, September 1, 1976; 43 FR 39999, September 28, 1978; 43 FR 42251, September 28, 1978; and 44 FR 17674, March 23, 1979.)

The annual public reporting and recordkeeping burden for this collection of information (averaged over the first 3 years after the effective date of the rule) is estimated to total 9,482 labor hours per year at a total annual cost of $4.1 million. This estimate includes notifications; a performance test and report (with repeat tests where needed); one-time preparation of a startup, shutdown, and malfunction plan with semiannual reports of any event where the procedures in the plan were not followed and an operation, maintenance, and monitoring plan; semiannual excess emissions reports; initial and semiannual furnace certifications; and recordkeeping. This estimate also includes one time preparation of emissions averaging plans and scrap sampling plans for some respondents. Total capital costs associated with monitoring requirements over the 3-year period of the ICR is estimated at $993 thousand; this estimate includes the capital and startup costs associated with installation of monitoring equipment.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purpose of collecting, validating, and verifying information; process and maintain information and disclose and provide information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to respond to a collection of information; search existing data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

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 EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

Comments are requested on the EPA's need for this information, the accuracy of the burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques. Send comments on the ICR to the Director, OPPE Regulatory Information Division; U.S. Environmental Protection Agency (2136), 401 M Street SW., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, marked ''Attention: Desk Office for EPA.'' Include the ICR number in any correspondence. Because OMB is required to make a decision concerning the ICR between 30 and 60 days after February 11, 1999, a comment to OMB is best assured of having its full effect if OMB receives it by March 15, 1999. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

J. National Technology Transfer and Advancement Act

Under section 12(d) of the National Technology Transfer and Advancement Act (NTTAA), the Agency is required to use voluntary consensus standards in its regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impracticable. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) which are developed or adopted by voluntary consensus bodies. Where available and potentially applicable voluntary consensus standards are not used by EPA, the Act requires the Agency to provide Congress, through the OMB, and explanation of the reasons for not using such standards. This section summarizes the EPA's response to the requirements of the NTTA for the analytical test methods included in the proposed rule.

Consistent with the NTTAA, the EPA conducted a search to identify voluntary consensus standards. However, no candidate consensus standards were identified for measuring emissions of the HAPs or surrogates subject to emission standards in the rule. The proposed rule requires standard EPA methods well known to the industry and States. Approved alternative methods also may be used. The EPA, in coordination with the industry and States, have agreed on the use of these test methods in the rule.

K. Pollution Prevention Act

During the development of the proposed NESHAP, EPA explored opportunities to eliminate or reduce emissions through the application of new processes or work practices. The proposed NESHAP requires the implementation of site-specific work practices to prevent or limit the use of materials in furnace operations that generate HAP emissions.

L. Clean Air Act

In accordance with section 117 of the Act, publication of this proposal was preceded by consultation with appropriate advisory committees, independent experts, and Federal departments and agencies. This regulation will be reviewed 8 years from the date of promulgation. This review will include an assessment of such factors as evaluation of the residual health risks, any overlap with other programs, the existence of alternative methods, enforceability, improvements in emission control technology and health data, and the recordkeeping and reporting requirements.

List of Subjects in 40 CFR Part 63

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

Dated: December 31, 1998.

Carol M. Browner,

Administrator.

For the reasons set out 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—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

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

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

2. Part 63 is amended by adding subpart RRR to read as follows:

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

Sec.

General

Emission Standards and Operating Requirements

Monitoring and Compliance Provisions

Notifications, Reports, and Records

Other

Appendix A to Subpart RRR of Part 63—Applicability of General Provisions (40 CFR part 63, subpart A) to Subpart RRR

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

General

§ 63.1500 Applicability.

(a) The requirements of this subpart apply to the owner or operator of each secondary aluminum production facility that is a major source of hazardous air pollutants (HAPs) as defined in § 63.2 of this part or is an area source of D/F emissions.

(b) The requirements of this subpart apply to the following new or existing affected sources:

(1) Each new and existing scrap shredder;

(2) Each new and existing chip dryer;

(3) Each new and existing scrap dryer/delacquering/decoating kiln;

(4) Each new and existing group 2 furnace;

(5) Each new and existing sweat furnace;

(6) Each new and existing dross-only furnace;

(7) Each new and existing rotary dross cooler;

(8) Each new group 1 furnace;

(9) Each new in-line fluxer; and

(10) Each secondary aluminum processing unit.

(c) The owner or operator of a secondary aluminum production facility that is a major source is subject to title V permitting requirements.

§ 63.1501 Dates.

(a) The owner or operator of an existing affected source must comply with the requirements of this subpart by: [date 3 years after publication of the final rule in the **Federal Register**].

(b) The owner or operator of a new affected source that commences construction or reconstruction after February 11, 1999 must comply with the requirements of this subpart by [date of publication of final rule in the **Federal Register**] or upon startup, whichever is later.

§ 63.1502 Incorporation by reference.

(a) The following material is incorporated by reference in the corresponding sections noted. The incorporation by reference (IBR) of certain publications listed in the rule will be approved by the Director of the Office of the Federal Register as of the date of publication of the final rule in accordance with 5 U.S.C 552(a) and 1 CFR part 51. This material is incorporated as it exists on the date of approval and notice of any change in the material will be published in the **Federal Register**: Chapters 3 and 5 of ''Industrial Ventilation: A Manual of Recommended Practice,'' American Conference of Governmental Industrial Hygienists, (23rd edition, 1998), IBR approved for § 63.1506(c).

(b) The material incorporated by reference is available for inspection at the Office of the Federal Register, 800 North Capitol Street NW., Suite 700, 7th Floor, Washington, DC and at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M Street SW., Washington, DC. The material also is available for purchase from the following address: Customer Service Department, American Conference of Governmental Industrial Hygienists (ACGIH), 1330 Kemper Meadow Drive, Cincinnati, OH 45240–1634, telephone number (513) 742–2020.

§ 63.1503 Definitions.

Terms used in this subpart are defined in the Clean Air Act as amended (the Act), in § 63.2 of this part, or in this section as follows:

Add-on air pollution control device means equipment installed on a process vent that reduces the quantity of a pollutant that is emitted to the air.

Afterburner means an air pollution control device that uses controlled flame combustion to convert combustible materials to noncombustible gases; also known as an incinerator.

Bag leak detection system means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (i.e., baghouse) in order to detect bag failures. A *bag leak detection system* includes, but is not limited to, an instrument that operates on triboelectric, light scattering, transmittance, or other effect to monitor relative particulate matter loadings.

Chip dryer means a device that uses heat to evaporate water, oil, or oil/water mixtures from unpainted/uncoated aluminum chips.

Chips means small, uniformly-sized, unpainted pieces of aluminum scrap, typically below 1¼ inches in any dimension, primarily generated by turning, milling, boring, and machining of aluminum parts.

Clean charge means furnace charge materials of pure aluminum, including molten aluminum, T-bar, sow, ingot, alloying elements, uncoated aluminum chips dried at 343°C (650°F) or higher, aluminum scrap dried/delacquered/decoated at 482°C (900°F) or higher, and noncoated runaround scrap.

Dross means the slags and skimmings from aluminum melting and refining operations consisting of fluxing agent(s) and impurities from scrap aluminum charged into the furnace and/or oxidized and non-oxidized aluminum.

Dross-only furnace means a furnace, typically of rotary barrel design, dedicated to the reclamation of aluminum from dross formed during melting, holding, fluxing, or alloying operations carried out in other process units. Dross is the sole feedstock to this type of furnace.

Emission unit means an existing *group 1 furnace* or *in-line fluxer* at a *secondary aluminum production facility*.

Fabric filter means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media; also known as a baghouse.

Feed/charge weight means, for a furnace that operates in batch mode, the total weight of scrap (including molten aluminum, T-bar, sow, ingot, etc.), alloying agents, and solid fluxes that enter the furnace during an operating cycle. For a furnace or other process unit that operates continuously, *feed/charge weight* means the weight of scrap (including molten aluminum, T-bar, sow, ingot, etc.), alloying agents, and solid fluxes that enter the process unit within a specified time period (e.g., a time period equal to the performance test period).

Fluxing means refining of molten aluminum to improve product quality, achieve product specifications, or reduce material loss, including the addition of salts such as magnesium chloride to cover the molten bath to reduce oxidation (cover flux), the addition of solvents to remove impurities (solvent flux); and the injection of gases such as chlorine to remove magnesium (demagging) or hydrogen bubbles (degassing). *Fluxing* may be performed in the furnace or outside the furnace by an *in-line fluxer*.

Furnace hearth means the combustion zone of a furnace, in which the molten metal is contained.

Group 1 furnace means a furnace of any design that melts, holds, or processes aluminum scrap containing paint, lubricants, coatings, or other foreign materials or within which *reactive fluxing* is performed.

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, nonHAP-containing/nonHAP-generating gases or agents.

HCl means, for the purposes of this subpart, emissions of hydrogen chloride that serve as a surrogate measure of the total emissions of the HAPs hydrogen chloride and chlorine.

In-line fluxer means a device exterior to a furnace, typically located in a transfer line from a furnace, used to refine (flux) molten aluminum; also known as a flux box, degassing box, or demagging box.

Lime means calcium oxide or other alkaline reagent.

Lime-injection means the continuous mechanical addition of lime upstream of a *fabric filter* to adsorb or react with pollutants.

Melting/holding furnace means a *group 1 furnace* that processes only *clean charge*, performs melting, holding, and fluxing functions, and does not transfer molten aluminum to or from another furnace.

Operating cycle means for a batch process, the period beginning when the feed material is first charged to the operation and ending when all feed material charged to the operation has been processed. For a batch melting or holding furnace process, *operating cycle* means the period including the charging and melting of scrap aluminum and the fluxing, refining, alloying, and tapping of molten aluminum.

PM means, for the purposes of this subpart, emissions of particulate matter that serve as a measure of total particulate emissions and as a surrogate for metal HAPs contained in the particulates including but not limited to: antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium.

Pollution prevention means source reduction as defined under the Pollution Prevention Act of 1990 (e.g., equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control), and other practices that reduce or eliminate the creation of pollutants through increased efficiency in the use of raw materials, energy, water, or other resources, or protection of natural resources by conservation.

Process train means any set of *group 1 furnaces* and *in-line fluxers* that sequentially handle the same material. A *process train* may consist of affected sources and *emission units* within an affected source. For example, a new *group 1 furnace* may feed a *secondary aluminum processing unit.* Other examples of a *process train* include:

(1) A melting furnace (or multiple melting furnaces operating in parallel) and a holding furnace (or multiple holding furnaces operating in parallel) where molten aluminum is transferred from the melting furnace(s) to the holding furnace(s) and then to a casting operation;

(2) A melting furnace (or multiple melting furnaces operating in parallel) and an *in-line fluxer* where molten aluminum is transferred from the furnace(s) to the *in-line fluxer* and then to a casting operation;

(3) A *melting/holding furnace* (or multiple *melting/holding furnaces* operating in parallel) and an *in-line fluxer* where molten aluminum is transferred from the furnace(s) to the *in-line fluxer* and then to a casting operation; or

(4) A melting furnace (or multiple melting furnaces operating in parallel), a holding furnace (or multiple holding furnaces operating in parallel), and an *in-line fluxer* where molten aluminum is transferred sequentially from the melting furnace(s) to the holding furnace(s) and to the *in-line fluxer* and then to a casting operation.

Reactive fluxing means the use of any gas, liquid, or solid flux that results in a HAP emission. Argon and nitrogen are not reactive and do not produce HAPs.

Reconstruction means the replacement of components of an affected source or *emission unit* such that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and

(2) It is technologically and economically feasible for the reconstructed source to meet relevant standard(s) established in this subpart.

Replacement of the refractory in a furnace is routine maintenance and is not a *reconstruction.* The repair and replacement of *in-line fluxer* components (e.g., rotors/shafts, burner tubes, refractory, warped steel) is considered to be routine maintenance and is not considered a *reconstruction. In-line fluxers* are typically removed to a maintenance/repair area and are replaced with a repaired unit. This replacement of an existing *in-line fluxer* with a repaired unit is not considered a *reconstruction.*

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.

Rotary dross cooler means a water-cooled rotary barrel device that accelerates cooling of dross.

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

Scrap shredder means a unit that crushes, grinds, or breaks scrap into a more uniform size prior to processing or charging to a *chip dryer, scrap dryer/delacquering/decoating kiln,* or furnace.

Secondary aluminum processing unit 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.*

Secondary aluminum production facility means any establishment using post-consumer scrap, aluminum scrap, ingots, foundry returns, dross, or molten metal as the raw material and performing one or more of the following processes: Scrap shredding, scrap drying/delacquering/ decoating, chip drying, furnace operations (i.e., melting, holding, refining, fluxing, or alloying), in-line fluxing, or dross cooling. A *secondary aluminum production facility* may be independent or part of a primary aluminum production facility. Facilities such as manufacturers of aluminum die castings and aluminum foundries are included in this definition if the facility includes any of the affected sources subject to D/F emission limits or has an on-site *group 1 furnace* (i.e., the facility is an area source of D/F emissions).

Sidewell means an open well adjacent to the hearth of a furnace with connecting arches between the hearth and the open well through which molten aluminum is circulated between the hearth, where heat is applied by burners, and the open well, which is used for charging scrap and solid flux or salt to the furnace, injecting fluxing agents, and skimming dross.

Sweat furnace means a furnace used exclusively to reclaim aluminum from scrap that contains high iron levels by using heat to separate the low-melting point aluminum from the scrap while the higher melting-point iron remains in solid form.

TEQ means the international method of expressing toxicity equivalents for dioxins and furans as defined in ‘‘Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-

Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update'' (EPA–625/3–89–016), available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161, NTIS no. PB 90–145756.

THC means, for the purposes of this subpart, total hydrocarbon emissions that also serve as a surrogate for the total emissions of organic HAP compounds.

Three-day, 24-hour rolling average means daily calculations of the average 24-hour emission rate (lbs/ton of feed), over the three most recent consecutive 24-hour periods, for a *secondary aluminum processing unit.*

Total reactive chlorine flux injection rate means the sum of the total weight of chlorine in the gaseous or liquid reactive flux and the total weight of chlorine in the solid reactive chloride flux as determined by the procedure in § 63.1512(o).

§ 63.1504 [Reserved]

Emission Standards and Operating Requirements

§ 63.1505 Emission standards for affected sources and emission units.

(a) *Summary.* Except as provided in paragraph (l) of this section for secondary aluminum processing units in an approved emissions plan, the owner or operator of a new or existing affected source must comply with each applicable limit in this section. Table 1 to this section summarizes the emission standards for each type of source.

(b) *Scrap shredder.* On and after the date the initial performance test is conducted or required to be conducted, whichever date is earlier,

(1) The owner or operator of a scrap shredder at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere any emissions in excess of 0.023 grams (g) of PM per dry standard cubic meter (dscm) (0.010 grain (gr) of PM per dry standard cubic foot (dscf)).

(2) The owner or operator of a scrap shredder at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere any visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM or visible emissions monitoring is chosen as the monitoring option.

(c) *Chip dryer.* On and after the date the initial performance test is conducted or required to be conducted, whichever date is earlier, the owner or operator of a chip dryer must not discharge or cause to be discharged to the atmosphere any emissions in excess of:

(1) 0.40 kilogram of THC, as propane, per megagram (Mg) (0.80 lb of THC, as propane, per ton) of feed from a chip dryer at a secondary aluminum production facility that is a major source; and

(2) 2.50 micrograms (µg) of D/F TEQ per Mg (3.5 x 10^{-5} gr per ton) of feed from a chip dryer at a secondary aluminum production facility that is a major or area source.

(d) *Scrap dryer/delacquering/decoating kiln.* On and after the date the initial performance test is conducted or required to be conducted, whichever date is earlier,

(1) The owner or operator of a scrap dryer/ delacquering/decoating kiln must not discharge or cause to be discharged to the atmosphere any emissions in excess of:

(i) 0.03 kg of THC, as propane, per Mg (0.06 lb of THC, as propane, per ton) of feed from a scrap dryer/ delacquering/decoating kiln at a secondary aluminum production facility that is a major source;

(ii) 0.04 kg of PM per Mg (0.08 lb per ton) of feed from a scrap dryer/delacquering/decoating kiln at a secondary aluminum production facility that is a major source;

(iii) 0.25 µg of D/F TEQ per Mg (3.5 x 10^{-6} gr of D/F TEQ per ton) of feed from a scrap dryer/delacquering/decoating kiln at a secondary aluminum production facility that is a major or area source; and

(iv) 0.40 kg of HCl per Mg (0.80 lb per ton) of feed from a scrap dryer/delacquering/decoating kiln at a secondary aluminum production facility that is a major source.

(2) The owner or operator of a scrap dryer/delacquering/decoating kiln at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere any visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option.

(e) *Scrap dryer/delacquering/decoating kiln: alternative limits.* The owner or operator of a scrap dryer/delacquering/decoating kiln may choose to comply with the emission limits in this paragraph as an alternative to the limits in paragraph (d) of this section if the scrap dryer/delacquering/decoating kiln is equipped with an afterburner having a design residence time of at least 1 second and the afterburner is operated at a temperature of at least 750 °C (1,400 °F) at all times. On and after the date the initial performance test is conducted or required to be conducted, whichever date is earlier:

(1) The owner or operator of a scrap dryer/delacquering/decoating kiln must not discharge or cause to be discharged to the atmosphere any emissions in excess of:

(i) 0.10 kg of THC, as propane, per Mg (0.20 lb of THC, as propane, per ton) of feed from a scrap dryer/delacquering/decoating kiln at a secondary aluminum production facility that is a major source;

(ii) 0.15 kg of PM per Mg (0.30 lb per ton) of feed from a scrap dryer/delacquering/decoating kiln at a secondary aluminum production facility that is a major source;

(iii) 5.0 µg of D/F TEQ per Mg (7.0 × 10^{-5} gr of D/F TEQ per ton) of feed from a scrap dryer/delacquering/decoating kiln at a secondary aluminum production facility that is a major or area source; and

(iv) 0.75 kg of HCl per Mg (1.50 lb per ton) of feed from a scrap dryer/decoating/delacquering kiln at a secondary aluminum production facility that is a major source.

(2) The owner or operator of a scrap dryer/delacquering/decoating kiln at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere any visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option.

(f) *Sweat furnace.* On and after the date the initial performance test is conducted or required to be conducted, whichever date is earlier, the owner or operator of a sweat furnace at a secondary aluminum production facility that is a major or area source must not discharge or cause to be discharged to the atmosphere any emissions in excess of 0.80 nanogram (ng) of D/F TEQ per dscm (3.5 × 10^{-10} gr per dscf) at 11 percent O_2.

(g) *Dross-only furnace.* On and after the date the initial performance test is conducted or required to be conducted, whichever date is earlier:

(1) The owner or operator of a dross-only furnace at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere any emissions in excess of 0.15 kg of PM per Mg (0.30 lb of PM per ton) of feed.

(2) The owner or operator of a dross-only furnace at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere any visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option.

(h) *Rotary dross cooler.* On and after the date the performance test is conducted or required to be conducted, whichever date is earlier:

(1) The owner or operator of a rotary dross cooler at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere any emissions in excess of 0.09 g of PM per dscm (0.04 gr per dscf).

(2) The owner or operator of a rotary dross cooler at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere any visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option.

(i) *New/reconstructed group 1 furnace.* The owner or operator of a new group 1 furnace must meet the emission standards in this paragraph. On and after the date the initial performance test is conducted or required to be conducted, whichever date is earlier:

(1) Except as provided in paragraph (i)(3) of this section for a melter/holder processing only clean charge, the owner or operator must not discharge or cause to be discharged to the atmosphere any emissions in excess of:

(i) 0.20 kg of PM per Mg (0.40 lb of PM per ton) of feed from a group 1 furnace at a secondary aluminum production facility that is a major source;

(ii) 15 μg of D/F TEQ per Mg (2.1 x 10^{-4} gr of D/F TEQ per ton) of feed from a group 1 furnace at a secondary aluminum production facility that is a major or area source. This limit does not apply if the furnace processes only clean charge; and

(iii) 0.20 kg of HCl per Mg (0.40 lb of HCl per ton) of feed or, if the furnace is equipped with an add-on air pollution control device, reduce uncontrolled HCl emissions by at least 90 percent, by weight, for a group 1 furnace at a secondary aluminum production facility that is a major source.

(2) The owner or operator of a group 1 furnace at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere any visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option.

(3) The owner or operator of a group 1 melter/holder processing only clean charge at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere any emissions in excess of 0.40 kg of PM per Mg (0.80 lb of PM per ton) of feed.

(j) *In-line fluxer.* Except as provided in paragraph (j)(1)(iii) of this section for an in-line fluxer using no reactive flux material, the owner or operator of a new/reconstructed in-line fluxer must meet the emission standards in this paragraph. On and after the date the performance test is conducted or required to be conducted, whichever date is earlier:

(1) The owner or operator of an in-line fluxer at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere any emissions in excess of:

(i) 0.02 kg of HCl per Mg (0.04 lb of HCl per ton) of feed; and

(ii) 0.005 kg of PM per Mg (0.01 lb of PM per ton) of feed.

(iii) The emission limits in paragraphs (j)(1)(i) and (j)(1)(ii) of this section do not apply to a new/reconstructed or existing in-line fluxer that uses no reactive flux materials.

(2) The owner or operator of an in-line fluxer at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere any visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option.

(k) *Secondary aluminum processing unit.* The owner or operator must comply with the emission limits calculated using the equations for PM and HCl in paragraphs (k)(1) and (k)(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)(i) of this section for a group 1 furnace or in paragraph (j)(1)(ii) of this section for an in-line fluxer;

T_{ti}=The feed rate for individual emission unit i; and

L_{CPM}=The PM emission limit for the secondary aluminum processing unit.

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 in excess of:

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

Where,

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

L_{cHCl}=The HCl emission limit for the secondary aluminum processing unit.

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

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

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

Where,

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

$L_{cD/FK}$=The D/F emission limit for the secondary aluminum processing unit.

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

(4) The owner or operator must not discharge or allow to be discharged to the atmosphere any visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device

if a COM is chosen as the monitoring option.

(5) The owner or operator must comply with all requirements of an approved site-specific secondary aluminum processing unit emissions plan and all applicable design, work practice, or operational standards; performance test requirements; monitoring requirements; recordkeeping requirements; and reporting requirements of this subpart for each individual emission unit in a secondary aluminum processing unit.

(l) *Site-specific secondary aluminum processing unit emissions plan.* An owner or operator of a secondary aluminum processing unit must prepare and submit a site-specific emissions plan to the applicable permitting authority for review and approval according to the procedures in this paragraph.

(1) The owner or operator must submit the plan to the applicable permitting authority for review no later than 6 months before the date the secondary aluminum production facility intends to comply with the emission limits.

(2) The owner or operator must include the following information as part of the application for an operating permit for each secondary aluminum processing unit.

(i) The identification of each emission unit in the secondary aluminum processing unit;

(ii) The specific control technology or pollution prevention measure to be used for each emission unit in the secondary aluminum processing unit and the date of its installation or application;

(iii) The test plan for the measurement of emissions as required by § 63.1511(a);

(iv) The emission limit calculated for each secondary aluminum processing unit and performance test results with supporting calculations demonstrating initial compliance with each applicable emission limit;

(v) Information and data demonstrating compliance for each emission unit with all applicable design, equipment, work practice or operational standards; monitoring, recordkeeping, and reporting requirement of this subpart;

(vi) The monitoring requirements applicable to each emission unit in a secondary aluminum processing unit and the monitoring procedures for daily calculation of the 3-day, 24 hour rolling average using the procedure in § 63.1510(s);

(vii) Correlation of measured emissions with the selected process or operating parameter to be monitored; and

(viii) A demonstration that compliance with each of the applicable emission limits will be achieved under all operating conditions.

(3) Upon receipt, the permitting authority will review and approve or disapprove the plan or permit application according to the following criteria:

(i) Whether the plan includes all of the information specified in paragraph (m)(2) of this section; and

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

(4) The applicable permitting authority will not approve a site-specific plan or permit application containing any of the following provisions:

(i) Any averaging among emissions of differing pollutants;

(ii) The inclusion of any affected sources other than emission units in a secondary aluminum processing unit. A new or reconstructed emission unit cannot be part of a secondary aluminum processing unit;

(iii) The inclusion of any emission unit while it is shutdown; or

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

(5) Following review, the applicable permitting authority may approve the plan or permit application, request changes, or request additional information.

(6) To revise the plan prior to the end of the permit term, the owner or operator must submit a request to the applicable permitting authority containing the information required by paragraph (l)(2) of this section and obtain approval of the applicable permitting authority prior to implementing any revisions.

BILLING CODE 6560–50–P

TABLE 1 to § 63.1505 EMISSION STANDARDS FOR NEW AND EXISTING AFFECTED SOURCES

Affected source	Pollutant	Limit	Units
All new and existing affected sources and emission units controlled with a PM add-on control device that choose to monitor with a COM and all new and existing scrap shredders that choose to monitor with a COM or by visible emissions monitoring	Opacity	10	percent
New and existing scrap shredder	PM	0.01	gr/dscf
New and existing chip dryer	THC D/F[a]	0.80 2.50	lb/ton of feed µg/Mg of feed
New and Existing scrap dryer/ delacquering/ 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/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 1,400°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/Mg of feed
New and existing sweat furnace	D/F[a]	0.80	ng/dscm @ 11% O_2
New and existing dross-only furnace	PM	0.30	lb/ton of feed
New or reconstructed in-line fluxer[b]	HCl PM	0.04 0.01	lb/ton of feed lb/ton of feed
Existing or new/ reconstructed in-line fluxer with no reactive fluxing	No limits		Work practice: no reactive fluxing

Affected source	Pollutant	Limit	Units
New and existing rotary dross cooler	PM	0.04	gr/dscf
New and existing clean furnace (Group 2)	No limits		Work practices: clean charge only and no reactive fluxing
New or reconstructed group 1 melter/holder furnace (Processing only clean charge)[b]	PM HCl	0.80 0.40 or 90	lb/ton of feed lb/ton of feed percent reduction if equipped with add-on control device
New or reconstructed group 1 furnace[b]	PM HCl	0.40 0.40 or 90	lb/ton of feed lb/ton of feed percent reduction (if equipped with add-on control device)
	D/F[a]	15.0	μg/Mg of feed
New or reconstructed group 1 furnace[b] with clean charge only	PM HCl	0.40 0.40 Or 90	lb/ton of feed lb/ton of feed percent reduction (if equipped with add-on control device)
	D/F[a]	No Limit	Clean charge only

Affected source	Pollutant	Limit Units
Secondary aluminum processing unit[a,c] (consists of all existing group 1 furnaces and in-line flux boxes at the facility)	PM[d]	$L_{t_{PM}} = \frac{\sum_{i=1}^{n} (L_{i_{PM}} \times T_i)}{\sum_{i=1}^{n} (T_i)}$
	HCl[e]	$L_{t_{HCl}} = \frac{\sum_{i=1}^{n} (L_{i_{HCl}} \times T_i)}{\sum_{i=1}^{n} (T_i)}$
	D/F[f]	$L_{t_{D/F}} = \frac{\sum_{i=1}^{n} (L_{i_{D/F}} \times T_i)}{\sum_{i=1}^{n} (T_i)}$

FOOTNOTES TO TABLE 1

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

[b] These limits are also used to calculate the limits applicable to secondary aluminum processing units.

[c] 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/Mg (gr/ton) of feed]; $L_{tD/F}$ = the overall D/F emission

limit for the secondary aluminum processing unit [μg/Mg (gr/ton) of feed]; n = the number of units in the secondary aluminum processing unit.

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

[e] In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the HCl limit.

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

BILLING CODE 6560–50–C

§ 63.1506 Operating requirements.

(a) *Summary.* On and after the date on which the performance test is conducted or required to be conducted, whichever date is earlier, the owner or operator must operate all new and existing affected sources (including each emission unit in a secondary aluminum processing unit) and control equipment according to the requirements in this section. Operating requirements are summarized in Table 1 to this section.

(b) *Labeling.* The owner or operator must provide and maintain easily visible labels posted on each affected source and emission unit that identifies the applicable emission limits and means of compliance, including:

(1) The type of affected source or emission unit (e.g., chip dryer, scrap dryer/delacquering/decoating kiln, group 1 furnace, group 2 furnace, sweat furnace, dross-only furnace).

(2) The applicable emission limit(s), operational standard(s), and control method(s) (work practice or control device). This may include, but is not limited to, the type of charge to be used for a furnace (e.g., clean scrap only, all scrap, etc., dross only), the type of charge material for a chip dryer, and flux materials, system design and operating practices to be used.

(3) Parameters to be monitored and the compliant value or range of each monitored parameter.

(4) The identification of each emission unit that is part of a secondary aluminum processing unit.

(5) The measured emission rate for each emission unit that is part of a secondary aluminum processing unit.

(6) The identification of each process train, each emission unit that is part of a process train, and the identification of all other emission units in the process train.

(c) *Capture/collection systems.* For each affected source or emission unit equipped with an add-on air pollution control device, the owner or operator must:

(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 chapters 3 and 5 of ''Industrial Ventilation: A Handbook of Recommended Practice'' (incorporated by reference in § 63.1502 of this subpart);

(2) Vent captured emissions through a closed system; and

(3) Operate each capture/collection system according to the procedures and requirements in the operation, maintenance, and monitoring plan.

(d) *Feed/charge weight.* The owner or operator of each affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) of feed must:

(1) Install and operate a device that measures and records or otherwise determine the weight of feed/charge (or throughput) for each operating cycle or time period used in the performance test; and

(2) Operate each weight measurement system or other weight determination procedure in accordance with the operation, maintenance, and monitoring plan.

(e) *Scrap shredder.* The owner or operator of a scrap shredder with emissions controlled by a fabric filter must:

(1) If a bag leak detection system is used to meet the monitoring requirements in § 63.1510,

(i) The owner or operator must initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the operation, maintenance, and monitoring plan.

(ii) The owner or operator must operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of one hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

(2) If a continuous opacity monitoring system is used to meet the monitoring requirements in § 63.1510, the owner or operator must initiate corrective action within 1-hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the operation, maintenance, and monitoring plan.

(3) If visible emission observations are used to meet the monitoring requirements in § 63.1510, the owner or operator must initiate corrective action within 1-hour of any observation of visible emissions during a daily visible emissions test and complete the corrective action procedures in accordance with the operation, maintenance, and monitoring plan.

(f) *Chip dryer.* The owner or operator of a chip dryer with emissions controlled by an afterburner must:

(1) Maintain the 3-hour block average operating temperature of each afterburner at or above the average temperature established during the performance test.

(2) Operate each afterburner in accordance with the operation, maintenance, and monitoring plan.

(3) Operate each chip dryer using only unpainted/uncoated aluminum chips as the feedstock.

(g) *Scrap dryer/delacquering/decoating kiln.* The owner or operator of a scrap dryer/delacquering/decoating kiln with emissions controlled by an afterburner and a lime-injected fabric filter must:

(1) For each afterburner,

(i) Maintain the 3-hour block average operating temperature of each afterburner at or above the average temperature established during the performance test.

(ii) Operate each afterburner in accordance with the operation, maintenance, and monitoring plan.

(2) If a bag leak detection system is used to meet the monitoring requirements in § 63.1510,

(i) The owner or operator must initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the operation, maintenance, and monitoring plan.

(ii) The owner or operator must operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of one hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

(3) If a continuous opacity monitoring system is used to meet the monitoring requirements in § 63.1510, the owner or operator must initiate corrective action within 1-hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the operation, maintenance, and monitoring plan.

(4) Maintain the 3-hour block average inlet temperature for each fabric filter at

or below the average temperature established during the performance test, plus 14°C (25°F).

(5) Maintain free-flowing lime in the hopper to the feed device at all times; and

(i) Maintain the lime feeder setting at the same level established during the performance test; or

(ii) Maintain the 3-hour block average lime injection rate (lbs/hr) at or above the average rate established during the performance test. The owner or operator also must maintain the same schedule of lime injection used in the performance test; or

(iii) Maintain the average lime injection rate for each operating cycle or time period used in the performance test (lb/ton of feed) at or above the average rate established during the performance test. The owner or operator also must maintain the same schedule of lime injection used in the performance test.

(h) *Sweat furnace.* The owner or operator of a sweat furnace with emissions controlled by an afterburner must:

(1) Maintain the 3-hour block average operating temperature of each afterburner at or above the average temperature established during the performance test.

(2) Operate each afterburner in accordance with the operation, maintenance, and monitoring plan.

(i) *Dross-only furnace.* The owner or operator of a dross-only furnace with emissions controlled by a fabric filter must:

(1) If a bag leak detection system is used to meet the monitoring requirements in § 63.1510,

(i) The owner or operator must initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the operation, maintenance, and monitoring plan.

(ii) The owner or operator must operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of one hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

(2) If a continuous opacity monitoring system is used to meet the monitoring requirements in § 63.1510, the owner or operator must initiate corrective action within 1-hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the operation, maintenance, and monitoring plan.

(3) Operate each furnace using dross as the sole feedstock.

(j) *Rotary dross cooler.* The owner or operator of a rotary dross cooler with emissions controlled by a fabric filter must:

(1) If a bag leak detection system is used to meet the monitoring requirements in § 63.1510,

(i) The owner or operator must initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the operation, maintenance, and monitoring plan.

(ii) The owner or operator must operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of one hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

(2) If a continuous opacity monitoring system is used to meet the monitoring requirements in § 63.1510, the owner or operator must initiate corrective action within 1-hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the operation, maintenance, and monitoring plan.

(k) *In-line fluxer.* The owner or operator of an in-line fluxer (including an in-line fluxer that is part of a secondary aluminum processing unit) with emissions controlled by a lime-injected fabric filter must:

(1) If a bag leak detection system is used to meet the monitoring requirements in § 63.1510,

(i) The owner or operator must initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the operation, maintenance, and monitoring plan.

(ii) The owner or operator must operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of one hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

(2) If a continuous opacity monitoring system is used to meet the monitoring requirements in § 63.1510, the owner or operator must initiate corrective action within 1-hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the operation, maintenance, and monitoring plan.

(3) Maintain free-flowing lime in the hopper to the feed device at all times; and

(i) Maintain the lime feeder setting at the same level established during the performance test; or

(ii) Maintain the 3-hour block average lime injection rate (lbs/hr) at or above the average rate established during the performance test. The owner or operator also must maintain the same schedule of lime injection used in the performance test; or

(iii) Maintain the average lime injection rate for each operating cycle or time period used in the performance test (lb/ton of feed) at or above the average rate established during the performance test. The owner or operator also must maintain the same schedule of lime injection used in the performance test.

(4) Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test. The owner or operator also must maintain the same flux injection schedule used in the performance test.

(5) Maintain the 3-hour block average inlet temperature for each fabric filter at or below the average temperature established during the performance test, plus 14°C (25°F).

(l) *In-line fluxer using no reactive flux material.* The owner or operator of a new or existing in-line fluxer using no reactive flux materials must operate each in-line fluxer using no reactive flux materials.

(m) *Group 1 furnace with add-on air pollution control devices.* The owner or operator of a group 1 furnace (including a group 1 furnace that is part of a secondary aluminum processing unit) with emissions controlled by a lime-injected fabric filter must:

(1) If a bag leak detection system is used to meet the monitoring requirements in § 63.1510,

(i) The owner or operator must initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the operation, maintenance, and monitoring plan.

(ii) The owner or operator must operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of one hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

(2) If a continuous opacity monitoring system is used to meet the monitoring requirements in § 63.1510, the owner or operator must initiate corrective action within 1-hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the operation, maintenance, and monitoring plan.

(3) Maintain the 3-hour block average inlet temperature for each fabric filter at or below the average temperature established during the performance test, plus 14°C (25°F).

(4) Maintain free-flowing lime in the hopper to the feed device at all times; and

(i) Maintain the lime feeder setting at the same level established during the performance test; or

(ii) Maintain the 3-hour block average lime injection rate (lbs/hr) at or above the average rate established during the performance test. The owner or operator also must maintain the same schedule of lime injection used in the performance test; or

(iii) Maintain the average lime injection rate for each operating cycle or time period used in the performance test (lb/ton of feed) at or above the average rate established during the performance test. The owner or operator also must maintain the same schedule of lime injection used in the performance test.

(5) Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test. The owner or operator also must maintain the same flux injection schedule used in the performance test.

(6) Operate each side-well furnace such that:

(i) The level of molten metal remains above the top of the passage between the side-well and hearth during reactive flux injection.

(ii) Reactive flux is added only in the sidewell unless the hearth also is equipped with a control device for PM, HCl, and D/F emissions.

(n) *Group 1 furnace without add-on air pollution control devices.* The owner or operator of a group 1 furnace (including a group 1 furnace that is part of a secondary aluminum processing unit) without add-on air pollution control devices must:

(1) Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test. The owner or operator also must maintain the same flux injection schedule used in the performance test.

(2) Operate each furnace in accordance with the work practice/pollution prevention measures documented in the operation, maintenance, and monitoring plan and the site-specific monitoring plan and within the parameter values or ranges established in the site-specific monitoring plan.

(3) Operate each group 1 melter/holder subject to the emission standards in § 63.1505(i)(2) using only clean charge as the feedstock.

(o) *Group 2 furnace.* The owner or operator of a new or existing group 2 furnace must:

(1) Operate each furnace using only clean charge as the feedstock.

(2) Operate each furnace using no reactive flux.

(p) *Corrective action.* When a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test or from the parameter in a site-specific monitoring plan, the owner or operator must initiate the corrective actions specified in the operation, maintenance, and monitoring plan. Corrective action taken by the owner or operator must restore operation of the affected source or emission unit (including the process or control device) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation.

TABLE 1 TO § 63.1506.—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.	Labeling	Identification, emission limits and means of compliance posted on all affected sources and emission units.
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; operate in accordance with O, M & M plan.[b]
All affected sources and emission units subject to production-based (lb/ton of feed) emission limits[a].	Charge/feed weight	Operate a device that records the weight of each charge. Operate in accordance with O, M, and M plan.[b]
Scrap shredder with fabric filter	Bag leak detector	Initiate corrective action within 1-hr of alarm and complete in accordance with O, M, & M plan;[b] operate such that alarm does not sound more than 5% of operating time in 6-month period.
	or	

TABLE 1 TO § 63.1506.—SUMMARY OF OPERATING REQUIREMENTS FOR NEW AND EXISTING AFFECTED SOURCES AND EMISSION UNITS—Continued

Affected source/emission unit	Monitor type/operation/process	Operating requirements
	COM	Initiate corrective action within 1-hr of a 6-min average opacity reading of 5% or more and complete in accordance with O, M, & M plan. [b]
	or	
	VE	Initiate corrective action within 1-hr of any observed VE and complete in accordance with the O, M, & M plan.[b]
Chip Dryer with afterburner	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 O, M, and M plan. [b]
	Feed material	Operate using only unpainted aluminum chips.
Scrap dryer/delacquering/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 O, M, & M plan.[b]
	Bag leak detector	Initiate corrective action within 1-hr of alarm and complete in accordance with the O, M, & M plan; [b] operate such that alarm does not sound more than 5% of operating time in 6-month period.
	or	
	COM	Initiate corrective action within 1-hr of a 6-min average opacity reading of 5% or more and complete in accordance with the O, M, & 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).
Scrap dryer/delacquering/decoating kiln with afterburner and lime-injected fabric filter.	Lime injection rate and schedule	Maintain free-flowing lime in the feed hopper or silo at all times.
		Maintain average lime injection rate (lb/hr) at or above rate used during the performance test and adhere to the same lime injection schedule used during the performance test for each 3-hr period or:
		Maintain average lime injection rate (lb/ton of feed) at or above rate used during the performance test and adhere to the same lime injection schedule used during the performance test for each operating cycle or time period used in the performance test or:
		Maintain feeder setting at level established during the performance test.
Sweat furnace with afterburner	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 O, M, and M plan.[b]
Dross-only furnace with fabric filter	Bag leak detector	Initiate corrective action within 1-hr of alarm and complete in accordance with the O, M, & M plan; [b] operate such that alarm does not sound more than 5% of operating time in 6-month period.
	or	
	COM	Initiate corrective action within 1-hr of a 6-min average opacity reading of 5% or more and complete in accordance with the O, M, & M plan.[b]
	Feed material	Operate using only dross as the feed material.
Rotary dross cooler with fabric filter	Bag leak detector	Initiate corrective action within 1-hr of alarm and complete in accordance with the O, M, & M plan [b]; operate such that alarm does not sound more than 5% of operating time in 6-month period.
	or	
	COM	Initiate corrective action within 1-hr of a 6-min average opacity reading of 5% or more and complete in accordance with the O, M, & M plan [b].
In-line fluxer with lime-injected fabric filter (including those that are part of a secondary aluminum processing unit).	Bag leak detector	Initiate corrective action within 1-hr of alarm and complete in accordance with the O, M, & M plan; [b] operate such that alarm does not sound more than 5% of operating time in 6-month period.
	or	
	COM	Initiate corrective action within 1-hr of a 6-min average opacity reading of 5% or more and complete in accordance with the O, M, & M plan.[b]
	Lime injection rate and schedule	Maintain free-flowing lime in the feed hopper or silo at all times.
		Maintain average lime injection rate (lb/hr) at or above rate used during the performance test and adhere to the same lime injection schedule used during the performance test for each 3-hr period or:

TABLE 1 TO § 63.1506.—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 average lime injection rate (lb/ton of feed) at or above rate used during the performance test and adhere to the same lime injection schedule used during the performance test for each operating cycle or time period used in the performance test or: Maintain feeder setting at level established during performance test.
In-line fluxer with lime-injected fabric filter (including those that are part of a secondary aluminum processing unit).	Reactive flux injection rate and schedule.	Maintain reactive flux injection rate at or below rate used during the performance test and adhere to same flux injection schedule used during the performance test.
	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).
In-line fluxer (using no reactive flux material).	Flux materials	Use no reactive flux.
Group 1 furnace with lime-injected fabric filter (including those that are part of a secondary aluminum processing unit).	Bag leak detector	Initiate corrective action within 1-hr of alarm and complete in accordance with the O, M, & M plan;[b] operate such that alarm does not sound more than 5% of operating time in 6-month period.
	or	
	COM	Initiate corrective action within 1-hr of a 6-min average opacity reading of 5% or more and complete in accordance with the O, M, & 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 and schedule.	Maintain reactive flux injection rate at or below rate used during the performance test and adhere to the same schedule used in performance test.
Group 1 furnace with lime-injected fabric filter (including those that are part of a secondary aluminum processing unit).	Lime injection rate and schedule	Maintain free-flowing lime in the feed hopper or silo at all times.
		Maintain average lime injection rate (lb/hr) at or above rate used during the performance test and adhere to the same lime injection schedule used during the performance test for each 3-hr period or: Maintain average lime injection rate (lb/ton of feed) at or above rate used during the performance test and adhere to the same lime injection schedule used during the performance test for each operating cycle or time period used in the performance test or: Maintain feeder setting at level established at performance test.
	Maintain molten aluminum level	Operate side-well furnaces such that the level of molten metal is above the top of the passage between side well and hearth during reactive flux injection.
	Fluxing in sidewell furnace hearth	Add reactive flux only to the sidewell furnace unless the hearth is also controlled.
Group 1 furnace without add-on controls (including those that are part of a secondary aluminum processing unit).	Reactive flux injection rate and schedule.	Maintain reactive flux injection rate at or below rate used during the performance test and adhere to the same flux injection schedule used in performance test.
	Site-specific monitoring plan	Operate furnace within the range of charge materials, contaminant levels, and parameter values established in the site-specific monitoring plan.[c]
	Feed material (melter/holder)	Use only clean charge.
Clean (group 2) furnace	Charge and flux materials	Use only clean charge. Use no reactive flux.

[a] Chip dryers, Scrap dryers/delacquering kilns/decoating kilns, dross-only furnaces, and in-line fluxers and group 1 furnaces including melter/holders (including those that are part of a secondary aluminum processing unit).

[b] O, M, & M plan—Operation, maintenance, and monitoring plan.

[c] Site-specific monitoring plan. Owner/operators of group 1 furnaces without control devices must include a section in their O, M, & M plan that documents work practice and pollution prevention measures by which compliance is achieved with emission limits and process or feed parameter-based operating requirements. This plan and the testing to demonstrate adequacy of the monitoring plan and correlation of parameters over the range of charge materials and fluxing practices must be developed in coordination with and approved by the permitting authority.

§§ 63.1507—63.1509 [Reserved]

Monitoring and Compliance Requirements

§ 63.1510 Monitoring requirements.

(a) *Summary.* On and after the date the performance test is completed or required to be completed, whichever date is earlier, 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 1 to this section.

(b) *Operation, maintenance, and monitoring 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 plan. The owner or operator must submit the plan to the applicable permitting authority for review and approval as part of the application for a part 70 or part 71 permit. Any subsequent changes to the plan must be submitted to the applicable permitting authority for review and approval. Pending approval by the applicable permitting authority of an initial or amended plan, the owner or operator must comply with the provisions of the submitted plan. Each plan must contain the following information:

(1) Process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for each process and control device.

(2) A monitoring schedule for each affected source and emission unit.

(3) Procedures for the proper operation and maintenance of each process unit and add-on control device used to meet the applicable emission limits or standards in § 63.1505.

(4) Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including:

(i) Quarterly calibration and certification of accuracy of each monitoring device according to the manufacturer's instructions; and

(ii) Procedures for the quality control and quality assurance of continuous emission or opacity monitoring systems as required by the general provisions in subpart A of this part.

(5) Procedures for monitoring process and control device parameters, including 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.

(6) Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in paragraph (b)(1) of this section, including:

(i) Procedures to determine and record the cause of an exceedance or excursion, and the time the exceedance or excursion began and ended; and

(ii) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed.

(7) A maintenance schedule for each process and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.

(8) Documentation of the work practice and pollution prevention measures used to achieve compliance with the applicable emission limits and a site-specific monitoring plan as required in paragraph (o) of this section for each group 1 furnace not equipped with an add-on air pollution control device.

(c) *Labeling.* The owner or operator must inspect each affected source and emission unit at least once per calendar month to confirm that posted labels as required by the operational standard in § 63.1506(b) are intact and legible.

(d) *Capture/collection system.* The owner or operator must:

(1) Install, operate, and maintain a capture/collection system for each affected source and emission unit equipped with an add-on air pollution control device; and (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 operational standards in § 63.1506(c) and record the results of each inspection.

(e) *Feed/charge weight.* The owner or operator of an affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or µg/Mg (gr/ton) of feed must install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to the affected source or emission unit over the same operating cycle or time period used in the performance test. As an alternative to a measurement device, the owner or operator may use a procedure acceptable to the applicable permitting authority to determine the total weight of feed/charge to the affected source or emission unit.

(1) The accuracy of the weight measurement device or procedure must be +1 percent of the weight being measured.

(2) The owner or operator must verify the calibration of the weight measurement device every 3 months.

(f) *Fabric filters and lime-injected fabric filters.* The owner or operator of an affected source or emission unit using a fabric filter or lime-injected fabric filter to comply with the requirements of this subpart must install, calibrate, maintain, and continuously operate a bag leak detection system as required in paragraph (f)(1) of this section or a continuous opacity monitoring system as required in paragraph (f)(2) of this section. The owner or operator of a scrap shredder must install and operate a bag leak detection system as required in paragraph (f)(1) of this section, install and operate a continuous opacity monitoring system as required in paragraph (f)(2) of this section, or conduct visible emission observations as required in paragraph (f)(3) of this section.

(1) These requirements apply to the owner or operator of a new or existing affected source or existing emission unit using a bag leak detection system.

(i) The owner or operator must install and operate a bag leak detection system for each exhaust stack of a fabric filter.

(ii) Each triboelectric bag leak detection system must be installed, calibrated, operated, and maintained according to the "Fabric Filter Bag Leak Detection Guidance," (dated September 1997). This document is available from the U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Emissions, Monitoring and Analysis Division, Emission Measurement Center (MD–19), Research Triangle Park, NC 27711. This document also is available on the Technology Transfer Network (TTN) under Emission Measurement Technical Information (EMTIC), Continuous Emission Monitoring. Other bag leak detection systems must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

(iii) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less;

(iv) The bag leak detection system sensor must provide output of relative or absolute PM loadings;

(v) The bag leak detection system must be equipped with a device to continuously record the output voltage from the sensor;

(vi) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel;

(vii) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter;

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

(ix) Calibration of the system must, at a minimum, consist of establishing the baseline output by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.

(x) Following initial adjustment of the system, the owner or operator must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the operation, maintenance, and monitoring plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365 day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition.

(2) These requirements apply to the owner or operator of a new or existing affected source or an existing emission unit using a continuous opacity monitoring system.

(i) The owner or operator must install, calibrate, maintain, and operate a continuous opacity monitoring system to measure and record the opacity of emissions exiting each exhaust stack.

(ii) Each continuous opacity monitoring system must meet the design and installation requirements of Performance Specification 1 in appendix B to part 60 of this chapter.

(3) These requirements apply to the owner or operator of a new or existing scrap shredder who conducts visible emission observations.

(i) The owner or operator must perform a visible emissions test for each scrap shredder using a certified observer at least once a day according to the requirements of Method 9 in appendix A to part 60 of this chapter. Each Method 9 test must consist of five 6-minute observations in a 30-minute period; and

(ii) The owner or operator must record the results of each test.

(g) *Afterburner.* These requirements apply to the owner or operator of an affected source using an afterburner to comply with the requirements of this subpart.

(1) The owner or operator must install, calibrate, maintain, and operate a device to continuously monitor and record the operating temperature of the afterburner consistent with the requirements for continuous monitoring systems in subpart A of this part.

(2) The temperature monitoring device must meet each of these performance and equipment specifications:

(i) The temperature monitoring device must be installed at the exit of the combustion zone of each afterburner.

(ii) The monitoring system must record the temperature in 15-minute block averages, and determine and record the average temperature for each 3-hour block period.

(iii) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in § 63.1512(m).

(iv) The monitoring system calibration drift must not exceed 2 percent of 1.5 times the average temperature established according to the requirements in § 63.1512(m).

(v) The monitoring system relative accuracy must not exceed 20 percent.

(vi) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.

(3) The owner or operator must conduct an inspection of each afterburner at least once a year and record the results. At a minimum, an inspection must include:

(i) Inspection of all burners, pilot assemblies, and pilot sensing devices for proper operation and clean pilot sensor;

(ii) Ensure proper adjustment of combustion air and adjust, as necessary;

(iii) Inspection of internal structures (e.g., baffles) to ensure structural integrity;

(iv) Inspection of dampers, fans, and blowers for proper operation;

(v) Inspection for proper sealing;

(vi) Inspection of motors for proper operation;

(vii) Inspection of combustion chamber refractory lining and clean and replace lining as necessary;

(viii) Inspection of incinerator shell for corrosion and/or hot spots;

(ix) For the burn cycle that follows the inspection, document that the incinerator is operating properly and make any necessary adjustments; and

(x) Generally verify that the equipment is maintained in good operating condition.

(xi) Following an equipment inspection, all necessary repairs must be completed in accordance with the requirements of the operation, maintenance, and monitoring plan.

(h) *Fabric filter inlet temperature.* These requirements apply to the owner or operator of an affected source or emission unit subject to D/F and HCl emission standards and using a lime-injected fabric filter to comply with the requirements of this subpart.

(1) The owner or operator must install, calibrate, maintain, and operate a device to continuously monitor and record the temperature of the fabric filter inlet gases consistent with the requirements for continuous monitoring systems in subpart A of this part.

(2) The temperature monitoring device must meet each of these performance and equipment specifications:

(i) The monitoring system must record the temperature in 15-minute block averages, and calculate and record the average temperature for each 3-hour block period.

(ii) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in § 63.1512(n).

(iii) The monitoring system calibration drift must not exceed 2 percent of 1.5 times the average temperature established according to the requirements in § 63.1512(n).

(iv) The monitoring system relative accuracy must not exceed 20 percent.

(v) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.

(i) *Lime injection.* These requirements apply to the owner or operator of an affected source or emission unit using a lime-injected fabric filter to comply with the requirements of this subpart.

(1) The owner or operator must inspect each feed hopper or silo at least once each 8-hour period to verify that lime is always free-flowing and record the results of each inspection. If lime is found not to be free-flowing during any of the 8-hour period, the owner or operator must increase the frequency of inspections to at least once every 4-hour period for the next three days. The owner or operator may return to inspections at least once every 8 hour period if corrective action results in no further blockages of lime during the 3-day period.

(2) The owner or operator must record the lime feeder setting once each day of operation or monitor the 3-hour block average lime injection rate (lb/hr) or

monitor the average lime injection rate for each operating cycle or time period used in the performance test (lb/ton of feed). To monitor the lime injection rate (lb/hr or lb/ton of feed):

(i) Install, operate, calibrate, and maintain a device to continuously monitor and record the weight [kg (lbs)] of lime injected to each fabric filter and record the weight in 15-minute block averages. The accuracy of the weight measurement device must be ± 1 percent of the weight being measured. The owner or operator must verify the calibration of the device every 3 months.

(ii) To monitor the 3-hour block average lime injection rate (lb/hr), determine and record the average injection rate for each 3-hour period using the procedure in § 63.1512(p)(3). The owner or operator also must record the injection schedule for each 3-hour period.

(iii) To monitor the average injection rate (lb/ton of feed), calculate and record the average lime injection rate for each operating cycle or time period used in the performance test using the procedure in § 63.1512(p)(4). The owner or operator also must record the injection schedule for each operating cycle or time period used in the performance test.

(j) *Total reactive chlorine flux injection rate.* These requirements apply to the owner or operator of a group 1 furnace (with or without add-on air pollution control devices) or in-line fluxer.

(1) The owner or operator must install, calibrate, operate, and maintain a device to continuously measure and record the weight of gaseous or liquid reactive flux injected to each affected source or emission unit.

(i) The monitoring system must record the weight for each 15-minute block period over the same operating cycle or time period used in the performance test.

(ii) The accuracy of the weight measurement device must be ± 1 percent of the weight being measured.

(iii) The owner or operator must verify the calibration of the device every 3 months.

(2) The owner or operator must calculate and record the gaseous or liquid reactive flux injection rate (kg/Mg or lb/ton) for each operating cycle or time period used in the performance test using the procedure in § 63.1512(o).

(3) The owner or operator must record, for each 15-minute block period during each operating cycle or time period used in the performance test, the time, weight, and identity of each addition of:

(i) Gaseous or liquid reactive chloride flux other than chlorine; and

(ii) Solid reactive chloride flux.

(4) The owner or operator must calculate and record the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test using the procedure in § 63.1512(o).

(k) *Chip dryer.* These requirements apply to the owner or operator of a chip dryer with emissions controlled by an afterburner.

(1) The owner or operator must record the identity of all materials charged to the unit for each operating cycle or time period used in the performance test.

(2) The owner or operator must submit a certification of compliance with the applicable operational standard for charge materials in § 63.1506(f)(3) for each 6-month reporting period. Each certification must contain the information in § 63.1516(b)(2)(i).

(l) *Dross-only furnace.* These requirements apply to the owner or operator of a dross-only furnace.

(1) The owner or operator must record the identity of all materials charged to each unit for each operating cycle or time period used in the performance test.

(2) The owner or operator must submit a certification of compliance with the applicable operational standard for charge materials in § 63.1506(i)(3) for each 6-month reporting period. Each certification must contain the information in § 63.1516(b)(2)(ii).

(m) *In-line fluxers using no reactive flux.* These requirements apply to the owner or operator of an in-line fluxer that uses no reactive flux materials.

(1) The owner or operator must record the identity of all flux gases, agents, and materials in an operating log for each operating cycle of the in-line fluxer.

(2) The owner or operator must submit a certification of compliance with the operational standard for no reactive flux materials in § 63.1506(l) for each 6-month reporting period. Each certification must contain the information in § 63.1516(b)(2)(vi).

(n) *Group 1 furnace with add-on air pollution control devices.* These requirements apply to the owner or operator of a group 1 furnace (including those that are part of a secondary aluminum processing unit) using add-on air pollution control devices.

(1) The owner or operator must record in an aluminum level operating log for each charge of a sidewell furnace that the level of molten metal was above the top of the passage between the side well and hearth during reactive flux injection.

(2) The owner or operator must record in a flux materials operating log for each charge that no reactive flux was added to a furnace hearth where hearth emissions are not controlled.

(3) The owner or operator must submit a certification of compliance for 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) *Group 1 furnace without add-on air pollution control devices.* These requirements apply to the owner or operator of a group 1 furnace (including those that are part of a secondary aluminum processing unit) not equipped with add-on air pollution control devices.

(1) The owner or operator must develop in consultation with the applicable permitting authority a written site-specific monitoring plan as part of the operation, maintenance, and monitoring plan that addresses monitoring and compliance requirements for PM, HCl, and D/F emissions.

(i) The owner or operator must submit the proposed site-specific monitoring plan to the applicable permitting authority for review at least 6 months prior to the date the initial performance test is conducted or required to be conducted.

(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, and D/F and the proposed monitoring parameters for each pollutant. Test data must clearly demonstrate that emissions over the entire range of charge and flux materials processed by the furnace are less than or equal to the emission limit. The relationship between emissions and monitoring parameters for each pollutant must be clearly demonstrated over the entire range of charge and flux materials processed by the furnace.

(2) Each site-specific monitoring plan must document each work practice, equipment/design practice, pollution prevention practice, or other measure used to meet the applicable emission standards.

(3) Each site-specific monitoring plan must include provisions for unit labeling as required in paragraph (c) of this section, feed/charge weight measurement as required in paragraph (e) of this section and flux weight

measurement as required in paragraph (j) of this section.

(4) Each site-specific monitoring plan for a melter/holder subject to the clean charge emission standard in § 63.1505(i)(3) must include these requirements:

(i) The owner or operator must record the identity of all charge materials for each operating cycle or time period used in the performance test; and

(ii) The owner or operator must submit a certification of compliance with the applicable operational standard for clean charge materials in § 63.1506(n)(3) for each 6-month reporting period. Each certification must contain the information in § 63.1516(b)(2)(iv).

(5) If a continuous emission monitoring system is included in a site-specific monitoring plan, the plan must include provisions for the installation, operation, and maintenance of the system to provide quality-assured measurements of actual or correlated pollutant emissions in accordance with all applicable requirements of the general provisions in subpart A of this part.

(6) If a continuous opacity monitoring system is included in a site-specific monitoring plan, the plan must include provisions for the installation, operation, and maintenance of the system to provide quality-assured measurements of actual or correlated pollutant emissions in accordance with all applicable requirements of this subpart.

(7) If a site-specific monitoring plan includes a scrap inspection program for monitoring the scrap contaminant level of furnace charge materials, the plan must include provisions for the demonstration and implementation of the program in accordance with all applicable requirements in paragraph (p) of this section.

(8) If a site-specific monitoring plan includes a calculation method for monitoring the scrap contaminant level of furnace charge materials, the plan must include provisions for the demonstration and implementation of the program in accordance with all applicable requirements in paragraph (q) of this section.

(p) *Scrap inspection program for group 1 furnace (including those that are part of a secondary aluminum processing unit) without add-on air pollution control devices.* A scrap inspection program must include:

(1) Procedures for scrap inspector training and certification. An inspector training plan must contain:

(i) A description of steps for a correctly performed visual inspection;

(ii) Field practice of procedure with scrap above and below the definition of acceptable scrap;

(iii) An explanation of procedures to mark or segregate clean scrap;

(iv) An explanation of procedures for visual sampling locations within loads;

(v) An explanation of verification and validation procedures; and (vi) Consequences of misclassification or failure to continually validate.

(vii) Criteria for achieving inspector certification. This must include designation by the owner or operator, completion of scrap inspector training, and the demonstrated ability to correctly classify scrap.

(2) Procedures for visual inspection, including:

(i) Inspection procedures for each load received, such as visual inspection of transporting vehicle cargo area, review of relevant shipping documentation, visual inspection of scrap after unloading, inspection of those parts of the load consistent with representative sampling, and marking, tagging, or segregating clean purchased scrap from other scrap.

(ii) Criteria for certifying clean purchased scrap. These must include meeting a set of visual criteria for qualifying scrap as acceptable for use and inspection by a certified inspector.

(3) Procedures for representative sampling and measurements, including:

(i) Procedures for subdividing and sampling within each load received. These must include procedures for dividing the load into segments for representative sampling, sampling from all volumes into which the load was divided, and collection of specific sample sizes.

(ii) Analytical procedure for measuring oil and coatings content. These must include composite samples stored in containers to protect sample integrity, weighing of samples before and after processing to the nearest 0.1 gram, chain of custody procedures for collection, storage, and handling of samples, and a procedure for processing the sample to drive off oil and coatings at a set of reproducible standardized conditions. The sample collection and analytical procedures must clearly demonstrate that the same results are achieved when analyzing multiple samples from the same load including those collected by different inspectors.

(iii) Procedure for visual scrap inspection validation (initial qualification of the scrap inspection program). These must include selection of loads for physical measurements and validation period duration including procedures for selection of random samples without the knowledge of visual inspectors, procedures to ensure collection of sufficient number of samples within a reasonable time period for physical measurements to provide statistical evidence of validation, and procedures for inclusion of off-spec scrap loads to challenge visual inspectors. The criteria for concluding visual inspections can reject unacceptable scrap must include a clear definition of the visual appearance and emissions potential of acceptable scrap. No scrap classified as acceptable may generate emissions in excess of the applicable emission limits during the validation period. The procedure must clearly show that emission limits are not exceeded while processing scrap over the entire range of contaminant levels used.

(iv) Procedures for repeating validation when initial attempts fail. These must include a definition of the minimum time before a new attempt at validation and reconsideration of the definition of acceptable scrap, inspector training, or other procedural matters than may ensure future success.

(v) Procedures for continuing scrap inspection verification (continuing demonstration that scrap visual inspections can reject scrap loads that do not meet the definition of acceptable scrap). These must include periodic verification of visual inspection procedure by physical measurements including a definition of verification intervals and a procedure for determining verification frequency and the number of repetitions. Criteria for verification of scrap inspection program must include provisions to ensure that samples collected for physical measurement meet the definition of acceptable scrap and that revalidation is required for frequent failures of visual inspection procedure.

(vi) Procedure for preparing charge mixtures of clean purchased scrap with dirty scrap. These must include requirements for measurements and blending. All blended scrap must be physically sampled to verify the material meets the definition of acceptable scrap.

(vii) Recordkeeping requirements to document conformance with the plan requirements and monitoring of process or operating parameters to demonstrate continued compliance with all applicable emission limits and operating requirements.

(q) *Monitoring of scrap contamination level by calculation method for group 1 furnace (including those that are part of a secondary aluminum processing unit) without add-on air pollution control devices.* The owner or operator of a group 1 furnace dedicated to processing a distinct type of furnace charge composed of scrap with a uniform composition (such as rejected product from a manufacturing process for which the coating-to-scrap ratio can be documented) may include a program in the site-specific monitoring plan for determining, monitoring, and certifying the scrap contaminant level using a calculation method rather than a scrap inspection program. A scrap contaminant monitoring program using a calculation method must include:

(1) Procedures for the characterization and documentation of the contaminant level of the scrap prior to the performance test.

(2) Limitations on the furnace charge to scrap of the same composition used in the performance test (through charge selection or blending of coated scrap with clean charge).

(3) Operating, monitoring, recordkeeping, and reporting requirements to ensure that no scrap with a contaminant level higher than that used in the performance test is charged to the furnace.

(r) *Group 2 furnace.* These requirements apply to the owner or operator of a new or existing group 2 furnace.

(1) The owner or operator must record the identity of all materials charged to each furnace, including any nonreactive, nonHAP-containing/nonHAP-generating fluxing materials or agents.

(2) The owner or operator must submit a certification of compliance with the applicable operational standard for charge materials in § 63.1506(p) for each 6-month reporting period. Each certification must contain the information in § 63.1516(b)(2)(v).

(s) *Secondary aluminum processing unit.* The owner or operator must calculate and record the 3-day, 24-hour rolling average emissions of PM, HCl, 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:

(1) Calculate and record the total weight of material charged to each emission unit in the secondary aluminum processing unit for each 24-hour day of operation using the charge weight information required in paragraph (e) of this section.

(2) Multiply the total charge weight for each emission unit for the 24-hour period by the emission rate (in lb/ton of feed) for that emission unit as determined during the performance test to provide emissions for each emission unit for the 24-hour period, in pounds.

(3) Divide the total emissions for each secondary aluminum processing unit for the 24-hour period by the total material charged over the 24-hour period to provide the daily emission rate for the secondary aluminum processing unit.

(4) The 24-hour daily emission rate can be computed using Equation 4:

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

Where,

E_{day} = The daily PM, HCl, or D/F emission rate for the secondary aluminum processing unit for the 24-hour period;

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

ER_i = The measured emission rate for emission unit i as determined in the performance test (lb/ton or µg/Mg); 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 three most recent consecutive days and dividing by 3.

(t) *Alternative monitoring method.* The following procedure is an approved alternative method for monitoring the lime injection rate for use by the owner or operator of a noncontinuous lime injection system (i.e., lime is added manually to precoat the fabric filter).

(1) The owner or operator must record the time and mass of each lime addition during each operating cycle or time period used in the performance test.

(2) Using the recorded measurements for the total weight of feed or charge and the total weight of lime added, the owner or operator must calculate and record the average lime addition rate (lb/ton of feed) by dividing the total weight of lime added by the total weight of feed. The average lime addition rate, over the same operating cycle or time period used in the performance test, must not fall below the average lime addition rate established during the performance test.

TABLE 1 TO § 63.1510.—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.	Labeling	Check monthly to confirm that labels are intact and legible.
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.
All affected sources and emission units subject to production-based (lb/ton of feed) emission limits [a].	Charge/feed weight	Record weight of each charge; weight measurement device or other procedure accuracy of ±1%; calibrate every 3 months.
Scrap shredder with fabric filter	Bag leak detector	Install and operate in accordance with ''Fabric Filter Bag Leak Detection Guidance''; record voltage output from bag leak detector.
	or	
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR 63; determine and record 6-min block averages.
	or	
	VE	Conduct and record results of 30-min daily test in accordance with Method 9.
Chip Dryer with afterburner	Afterburner operating temperature	Continuous measurement device to meet EPA specifications; record average temperature for each 15-min block; determine and record 3-hr block averages.

TABLE 1 TO § 63.1510.—SUMMARY OF MONITORING REQUIREMENTS FOR NEW AND EXISTING AFFECTED SOURCES AND EMISSION UNITS—Continued

Affected source/emission unit	Monitor type/operation/process	Monitoring requirements
	Afterburner operation	Annual inspection of afterburner internal parts; complete repairs in accordance with the O, M, & M plan.
	Feed material	Record identity of charge daily; certify charge materials every 6 months.
Scrap dryer/delacquering/decoating kiln with afterburner and lime injected fabric filter.	Afterburner operating temperature	Continuous measurement device to meet EPA specifications; record temperatures in 15-min block averages; determine and record 3-hr block averages.
	Afterburner operation	Annual inspection of afterburner internal parts; complete repairs in accordance with the O, M, & M plan.
	Bag leak detector	Install and operate in accordance with ''Fabric Filter Bag Leak Detection Guidance''; record voltage output from bag leak detector.
	or	
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR 63; determine and record 6-min block averages.
Scrap dryer/delacquering/decoating kiln with afterburner and lime injected fabric filter.	Lime injection rate and schedule	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-hr inspections if corrective action results in no further blockage during 3-day period.
		Weight Measurement device accuracy of ±1%; calibrate every 3 months; record weight of lime injected for each 15-min block period; determine and record 3-hr block average rate (lb/hr) and schedule or
		Weight measurement device accuracy of ±%; calibrate every 3 months; record weight of lime injected for each 15-min block period; calculate and record rate (lb/ton of feed) and schedule for each operating cycle or time period used in the performance test or:
		Record feeder setting daily.
	Fabric filter inlet temperature	Continuous measurement device to meet EPA specifications; record temperatures in 15-min block averages; detemine and record 3-hr block averages.
Sweat furnace with afterburner	Afterburner operating temperature	Continuous measurement device to meet EPA specifications; record temperatures in 15-min block averages; determine and record 3-hr block averages.
	Afterburner operation	Annual inspection of afterburner internal parts; complete repairs in accordance with the O, M, & M plan.
Dross-only furnace with fabric filter	Bag leak detector	Install and operate in accordance with ''Fabric Filter Bag Leak Detection Guidance''; record output voltage from bag leak detector.
	or	
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR 63; determine and record 6-min block averages.
	Feed material	Record identity of each charge; certify charge materials every 6 months.
Rotary dross cooler with fabric filter	Bag leak detector	Install and operate in accordance with ''Fabric Filter Bag Leak Detection Guidance''; record output voltage from bag leak detector.
	or	
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR 63; determine and record 6-min block averages.
In-line fluxer with lime-injected fabric filter (including those that are part of a secondary aluminum processing unit).	Bag leak detector	Install and operate in accordance with ''Fabric Filter Bag Leak Detection Guidance''; record output voltage from bag leak detector.
	or	
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR 63; determine and record 6-min block averages.
	Fabric filter inlet temperature	Continuous measurement device to meet EPA specifications; record temperature in 15-min block averages; determine and record 3-hr block averages.
In-line fluxer using no reactive flux	Flux materials	Record flux materials; certify every 6 months for no reactive flux.
In-line fluxer with lime-injected fabric filter (including those that are part of a secondary aluminum processing unit) con't.	Reactive flux injection rate and schedule.	Weight measurement device accuracy of ±1%; calibrate every 3 months; record time, weight and type of reactive flux added or injected for each 15-min block period; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test.

TABLE 1 TO § 63.1510.—SUMMARY OF MONITORING REQUIREMENTS FOR NEW AND EXISTING AFFECTED SOURCES AND EMISSION UNITS—Continued

Affected source/emission unit	Monitor type/operation/process	Monitoring requirements
	Lime injection rate and schedule ..	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-hr inspections if corrective action results in no further blockage during 3-day period. Weight measurement device accuracy of ±1%; calibrate every 3 months; record weight of lime injected for each 15-min block period; determine and record 3-hr block average rate (lb/hr) and schedule or: Weight measurement device accuracy of ±1%; calibrate every 3 months; record weight of lime injected for each 15-min block period; calculate and record rate (lb/ton of feed) and schedule for each operating cycle or time period used in the performance test or: Record feeder setting daily.
Group 1 furnace with lime-injected fabric filter (including those that are part of a secondary aluminum processing unit).	Bag leak detector	Install and operate in accordance with ''Fabric Filter Bag Leak Detection Guidance''; record output voltage from bag leak detector.
	or	
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR 63; determine and record 6-min block averages.
	Lime injection rate and schedule ..	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-hr inspections if corrective action results in no further blockage during 3-day period. Weight measurement device accuracy of ±1%; calibrate every 3 months; record weight of lime injected for each 15-min block period; determine and record 3-hr block average rate (lb/hr) and schedule or: Weight measurement device accuracy of ±1%; calibration every 3 months; record weight of lime injected for each 15-min block period; calculate and record rate (lb/ton of feed) and schedule for each operating cycle or time period used in performance test or: Record feeder setting daily.
	Reactive flux injection rate and schedule.	Weight measurement device accuracy of ±1%; calibrate every 3 months; record time, weight and type of reactive flux added or injected for each 15-min.
Group 1 furnace with lime injected fabric filter (including those that are part of a secondary aluminum processing unit) con't.	Fabric filter inlet temperature	Continuous measurement device to meet EPA specifications; record temperatures in 15-min block averages; determine and record 3-hr block averages.
	Maintain molten aluminum level ...	Maintain aluminum level operating log; certify every 6 months.
	Fluxing in sidewell furnace hearth	Maintain flux addition operating log; certify every 6 months.
Group 1 furnace without add-on controls (including those that are part of a secondary aluminum processing unit).	Reactive flux injection rate and schedule.	Weight measurement device accuracy of ±1%; calibrate every 3 months; record time, weight and type of reactive flux added or injected for each 15-min block period; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test.
	Site-specific monitoring plan (approved by permitting agency).	Demonstration of site-specific monitoring plan to provide data and show correlation of emissions across the range of charge and flux materials and furnace operating parameters.
	Feed material (melter/holder)	Record identity of each charge; certify charge materials every 6 months.
Clean (group 2) furnace	Charge and flux materials	Record charge and flux materials; certify every 6 months for clean charge and no reactive flux.

[a] Chip dryers, scrap dryers/delacquering kilns/decoating kilns, dross-only furnaces, and in-line fluxers and group 1 furnaces or melter/holders (including those that are part of a secondary aluminum processing unit).

§ 63.1511 Performance test/compliance demonstration general requirements.

(a) *Site-specific test plan.* Prior to conducting a performance test required by this subpart, the owner or operator must prepare and submit a site-specific test plan meeting the requirements in § 63.7(c) of this part.

(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 must conduct each performance test according to the requirements of the general provisions in subpart A of this part and this subpart.

(1) The owner or operator must conduct each test while the affected

source or emission unit is operating at the highest production level and, if applicable, at the highest fluxing rate and representative of the range of materials processed by the unit.

(2) Each performance test for a continuous process must consist of three separate runs; pollutant sampling for each run must be conducted for the time period specified in the applicable method or, in the absence of a specific time period in the test method, for a minimum of 3 hours.

(3) Each performance test for a batch process must consist of three separate runs; pollutant sampling for each run must be conducted over the entire process operating cycle.

(4) Where multiple affected sources or emission units are exhausted through a common stack, pollutant sampling for each run must be conducted for a period of time for all affected sources or emission units to complete one entire process operating cycle or for 24 hours, whichever is shorter.

(5) Initial compliance with an applicable emission limit or standard is demonstrated if the average of three runs conducted during the performance test is less than or equal to the applicable emission limit or standard.

(c) *Test methods.* The owner or operator must use the following methods to determine compliance with the applicable emission limits or standards:

(1) Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses.

(2) Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate.

(3) Method 3 in appendix A to part 60 of this chapter for gas analysis.

(4) Method 4 in appendix A to part 60 of this chapter for moisture content of the stack gas.

(5) Method 5 in appendix A to part 60 of this chapter for the concentration of PM.

(6) Method 9 in appendix A to part 60 of this chapter for visible emission observations.

(7) Method 23 in appendix A to part 60 of this chapter for the concentration of D/F.

(8) Method 25A in appendix A to part 60 of this chapter for the concentration of THC, as propane.

(9) Method 26A in appendix A to part 60 of this chapter for the concentration of HCl. Where a lime-injected fabric filter is used as the control device to comply with the 90 percent reduction standard, the owner or operator must measure the fabric filter inlet concentration of HCl at a point before lime is introduced to the system.

(d) *Alternative methods.* The owner or operator may use an alternative test method, subject to approval by the Administrator.

(e) *Repeat tests.* The owner or operator of new or existing affected sources and emission units must conduct a performance test every 5 years following the initial performance test at the time of permit renewal.

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

(1) The complete emission test report(s) used as the basis of the parameter(s) is submitted.

(2) The same test methods and procedures as required by this subpart were used in the test.

(3) The owner or operator certifies that no design or work practice changes have been made to the source, process, or emission control equipment since the time of the report.

(4) All process and control equipment operating parameters required to be monitored were monitored as required in this subpart.

§ 63.1512 Performance test/compliance demonstration requirements and procedures.

(a) *Scrap shredder.* The owner or operator must conduct performance tests to measure PM emissions at the outlet of the control system. If visible emission observations is the selected monitoring option, the owner or operator must record visible emission observations from each exhaust stack for all consecutive 6-minute periods during the PM emission test according to the requirements of Method 9 in appendix A to part 60 of this chapter.

(b) *Chip dryer.* The owner or operator must conduct a performance test to measure THC and D/F emissions at the outlet of the control device while the unit processes only unpainted/uncoated aluminum chips.

(c) *Scrap dryer/delacquering/decoating kiln.* The owner or operator must conduct performance tests to measure emissions of THC, D/F, HCl, and PM at the outlet of the control device.

(1) If the scrap dryer/delacquering/decoating kiln is subject to the alternative emission limits in § 63.1505(e), the average afterburner operating temperature in each 3-hour block period must be maintained at or above 760°C (1,400°F) for the test.

(2) The owner or operator of a scrap dryer/delacquering/decoating kiln subject to the alternative limits in § 63.1505(e) must submit a written certification in the notification of compliance status report containing the information required by § 63.1515(b)(7).

(d) *Group 1 furnace with add-on air pollution control devices.* The owner or operator of a group 1 furnace that processes scrap other than clean charge materials with emissions controlled by a lime-injected fabric filter must conduct performance tests to measure emissions of PM and D/F at the outlet of the control device, and emissions of HCl at the outlet (for the emission limit) or the inlet and the outlet (for the percent reduction standard).

(e) *Group 1 furnace (including melter/holder) without add-on air pollution control devices.* In the site-specific monitoring plan required by § 63.1510(o), the owner or operator of a group 1 furnace (including a melter/holder) without add-on air pollution control devices must include data and information demonstrating compliance with the applicable emission limits.

(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, and D/F at the furnace exhaust outlet.

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

(f) *Sweat furnace.* The owner or operator must measure emissions of D/F from each sweat furnace at the outlet of the control device.

(g) *Dross-only furnace.* The owner or operator must conduct a performance test to measure emissions of PM from each dross-only furnace at the outlet of each control device while the unit processes only dross.

(h) *In-line fluxer.* The owner or operator must conduct a performance test to measure emissions of HCl and PM at the outlet of the control device. If the in-line fluxer uses no reactive flux materials, emission tests for PM and HCl are not required.

(i) *Rotary dross cooler.* The owner or operator must conduct a performance test to measure PM emissions at the outlet of the control device.

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

(1) Each group 1 furnace processing only clean charge to measure emissions of PM at the outlet of the control device and emissions of HCl at the outlet (for the emission limit) or at the inlet and outlet (for the percent reduction standard);

(2) Each group 1 furnace that processes scrap other than clean charge to measure emissions of PM and D/F at the outlet of the control device and emissions of HCl at the outlet of the control device (for the emission limit) or at the inlet and outlet (for the percent reduction standard); and

(3) Each in-line fluxer to measure emissions of PM and HCl at the outlet of the control device.

(k) *Feed/charge weight measurement.* During the emission test(s) conducted to determine compliance with emission limits in a kg/Mg (lb/ton) format, the owner or operator of an affected source or emission unit subject to an emission limit in a kg/Mg (lb/ton) of feed format must measure (or otherwise determine) and record the total weight of feed or charge to the affected source or emission unit for each of the three test runs and calculate and record the total weight.

(l) *Continuous opacity monitoring system.* The owner or operator of an affected source or emission unit using a continuous opacity monitoring system must conduct a performance evaluation to demonstrate compliance with Performance Specification 1 in appendix B to part 60 of this chapter. Following the performance evaluation, the owner or operator must measure and record the opacity of emissions from each exhaust stack for all consecutive 6-minute periods during the PM emission test.

(m) *Afterburner.* These requirements apply to the owner or operator of an affected source using an afterburner to comply with the requirements of this subpart.

(1) Prior to the initial performance test, the owner or operator must conduct a performance evaluation for the temperature monitoring device according to the requirements of § 63.8 of this part and sections 2, 3, 5, 7, 8, 9, and 10 of Performance Specification 2 in appendix B to part 60 of this chapter.

(2) The owner or operator must use these procedures to establish an operating parameter value or range for the afterburner operating temperature.

(i) Continuously measure and record the operating temperature of each afterburner every 15 minutes during the THC and D/F performance tests;

(ii) Determine and record the 15-minute block average temperatures for the three test runs.

(iii) Determine and record the 3-hour block average temperature measurements for the three test runs.

(n) *Inlet gas temperature.* The owner or operator of a affected source or emission unit using a lime-injected fabric filter must use these procedures to establish an operating parameter value or range for the inlet gas temperature.

(1) Continuously measure and record the temperature at the inlet to the lime-injected fabric filter every 15 minutes during the HCl and D/F performance tests.

(2) Determine and record the 15-minute block average temperatures for the three test runs; and

(3) Determine and record the 3-hour block average of the recorded temperature measurements for the three test runs.

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

(1) Continuously measure and record the weight of gaseous or liquid reactive flux injected for each 15 minute period during the HCl and D/F test, 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 three test runs.

(2) Record the identity, composition, and total weight of each addition of solid reactive chloride flux for the three test runs.

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

$$W_t=F_1W_1+F_2W_2$$

Where,

W_t=Total chlorine usage, by weight;
F_1=Fraction of gaseous or liquid flux that is chlorine;
W_1=Weight of reactive flux gas injected;
F_2=Fraction of solid reactive chloride flux that is chlorine (e.g., F=0.75 for magnesium chloride); and
W_2=Weight of solid reactive flux.

(4) Divide the weight of total chlorine usage (W_t) for the three test runs by the recorded measurement of the total weight of feed for the three test runs.

(5) If a solid reactive flux other than magnesium chloride is used, the owner or operator must derive the appropriate proportion factor subject to approval by the applicable permitting authority.

(p) *Lime injection.* The owner or operator of an affected source or emission unit using a lime-injected fabric filter system must use these procedures during the HCl and D/F tests to establish an operating parameter value for the feeder setting, the 3-hour block average lime injection rate (lb/hr), or the average lime injection rate for each operating cycle or time period used in the performance test.

(1) Ensure that lime in the feed hopper or silo is free-flowing at all times.

(2) If the owner or operator chooses to monitor the feeder rate setting, record the feeder setting for the three test runs. If the feed rate setting varies during the runs, determine and record the average feed rate from the three runs.

(3) If the owner or operator chooses to monitor the 3-hour block average lime injection rate (lb/hr):

(i) Record the schedule at which lime is injected to the fabric filter during each 3-hour period during each of the three test runs. Determine the average injection schedule for the three test runs.

(ii) Continuously measure and record the weight of lime injected (lbs) for each 15-minute period.

(iii) Determine and record the 15-minute block average weights for the three test runs.

(iv) Determine and record the 3-hour block average lime injection rate (lb/hr) of feed for the three test runs.

(4) If the owner or operator chooses to monitor the average lime injection rate (lb/ton of feed):

(i) Record the schedule at which lime is added during each test run. Determine the average schedule for the three test runs.

(ii) Continuously measure and record the weight of lime injected for each 15-minute period.

(iii) Determine and record the 15-minute block average weights for the three test runs.

(iv) Determine and record the total weight of injected lime for the three test runs.

(v) Using the recorded measurements for the total weight of feed and the total weights of injected lime, calculate and record the average lime injection rate (kg/Mg or lb/ton of feed) by dividing the total weight of lime injected by the total weight of feed for the three test runs.

(q) *Bag leak detection system.* The owner or operator of an affected source or emission unit using a bag leak detection system must submit the information described in § 63.1515(b)(6) as part of the notification of compliance status report to document conformance with the specifications and requirements in § 63.1510(f).

(r) *Labeling.* The owner or operator of each affected source or emission unit must submit the information described in § 63.1515(b)(3) as part of the notification of compliance status report to document conformance with the operational standard in § 63.1506(b).

(s) *Capture/collection system.* The owner or operator of a new or existing affected source or emission unit with an add-on control device must submit the information described in § 63.1515(b)(2) as part of the notification of compliance status report to document conformance with the operational standard in § 63.1506(c).

§ 63.1513 Equations for determining compliance.

(a) *THC emission limit.* Use Equation 6 to determine compliance with an emission limit for THC:

$$E = \frac{C \times MW \times Q \times K_1 \times K_2}{M_v \times P \times 10^6} \qquad \text{(Eq. 6)}$$

Where,

E=Emission rate of measured pollutant, kg/Mg (lb/ton) of feed;
C=Measured volume fraction of pollutant, ppmv;
MW=Molecular weight of measured pollutant, g/g-mole (lb/lb-mole): THC (as propane)=44.11;
Q=Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr);
K_1=Conversion factor, 1 kg/1,000 g (1 lb/lb);
K_2=Conversion factor, 1,000 L/m ^{3} (1 ft ^{3}/ft ^{3});
M_v=Molar volume, 24.45 L/g-mole (385.3 ft ^{3}/lb-mole); and
P=Production rate, Mg/hr (ton/hr).

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

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

Where,

E=Emission rate of PM, HCl, or D/F, kg/Mg (lb/ton) of feed;
C=Concentration of PM, HCl, or D/F, 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).

(c) *HCl percent reduction standard.* Use Equation 8 to determine compliance with an HCl percent reduction standard:

$$\%R = \frac{L_i - L_o}{L_i} \times 100 \qquad \text{(Eq. 8)}$$

Where,

%R=Percent reduction of the control device;
L_i=Inlet loading of pollutant, kg/Mg (lb/ton); and
L_o=Outlet loading of pollutant, kg/Mg (lb/ton).

(d) *Conversion of D/F measurements to TEQ units.* To convert D/F measurements to TEQ units, the owner or operator must use the procedures and equations in ‘‘Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update’’ (EPA–625/3–89–016), available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia, NTIS no. PB 90–145756.

(e) *Secondary aluminum processing unit.* Use the procedures in paragraphs (e)(1), (e)(2), and (e)(3) or the procedure in paragraph (e)(4) of this section to determine compliance with emission limits for a secondary aluminum processing unit.

(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 i;
T_{ti}=The average feed rate for individual emission unit i during the operating cycle or performance test period; and
n=The number of emission units in the secondary aluminum processing unit.

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

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

Where,

E_{cHCl} = The mass-weighted HCl emissions for the secondary aluminum processing unit; and
E_{tiHCl} = Measured HCl emissions for individual emission unit i.

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

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

Where,

$E_{cD/F}$ = The mass-weighted D/F emissions for the secondary aluminum processing unit; and
$E_{tiD/F}$ = Measured D/F emissions for individual emission unit i.

(4) As an alternative to using the equations in paragraphs (e)(1), (e)(2), and (e)(3) of this section, the owner or operator may demonstrate compliance for a secondary aluminum processing unit by demonstrating that each existing group 1 furnace is in compliance with

the emission limits for a new group 1 furnace in § 63.1505(i) and that each existing in-line fluxer is in compliance with the emission limits for a new in-line fluxer in § 63.1505(j).

§ 63.1514 [Reserved]

Notifications, Reports, and Records

§ 63.1515 Notifications.

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

(1) As required by § 63.9(b)(1) of this part, the owner or operator must provide notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard.

(2) As required by § 63.9(b)(3) of this part, the owner or operator of a new or reconstructed affected source, or a source that has been reconstructed such that it is an affected source, that has an initial startup after the effective date of this subpart and for which an application for approval of construction or reconstruction is not required under § 63.5(d) of this part, must provide notification that the source is subject to the standard.

(3) As required by § 63.9(b)(4) of this part, the owner or operator of a new or reconstructed major affected source that has an initial startup after the effective date of this subpart and for which an application for approval of construction or reconstruction is required by § 63.5(d) of this part must provide the following notifications:

(i) Notification of intention to construct a new major affected source, reconstruct a major source, or reconstruct a major source such that the source becomes a major affected source;

(ii) Notification of the date when construction or reconstruction was commenced (submitted simultaneously with the application for approval of construction or reconstruction if construction or reconstruction was commenced before the effective date of this subpart or no later than 30 days of the date construction or reconstruction commenced if construction or reconstruction commenced after the effective date of this subpart);

(iii) Notification of the anticipated date of startup; and

(iv) Notification of the actual date of startup.

(4) As required by § 63.9(b)(5) of this part, after the effective date of this subpart, an owner or operator who intends to construct a new affected source or reconstruct an affected source subject to this subpart, or reconstruct a source such that it becomes an affected source subject to this subpart must provide notification of the intended construction or reconstruction. The notification must include all the information required for an application for approval of construction or reconstruction as required by § 63.5(d) of this part. For major sources, the application for approval of construction or reconstruction may be used to fulfill these requirements.

(i) The application must be submitted as soon as practicable before the construction or reconstruction is planned to commence (but no sooner than the effective date) if the construction or reconstruction commences after the effective date of this subpart; or

(ii) The application must be submitted as soon as practicable before startup but no later than 90 days after the effective date of this subpart if the construction or reconstruction had commenced and initial startup had not occurred before the effective date.

(5) As required by § 63.9(d) of this part, the owner or operator must provide notification of any special compliance obligations for a new source.

(6) As required by §§ 63.9(e) and 63.9(f) of this part, the owner or operator must provide notification of the anticipated date for conducting performance tests and visible emission observations. The owner or operator must notify the Administrator of the intent to conduct a performance test at least 60 days before the performance test is scheduled; notification of opacity or visible emission observations for a performance test must be provided at least 30 days before the observations are scheduled to take place.

(7) As required by § 63.9(g) of this part, the owner or operator must provide additional notifications for sources with continuous emission monitoring systems or continuous opacity monitoring systems.

(b) *Notification of compliance status report.* Each owner or operator must submit a notification of compliance status report within 60 days after the compliance dates specified in § 63.1501. The notification must be signed by the responsible official who must certify its accuracy. A complete notification of compliance status report must include the information specified in paragraphs (a)(1) through (a)(11) of this section. The required information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, or in any combination. In a State with an approved operating permit program where delegation of authority under section 112(l) of the Act has not been requested or approved, the owner or operator must provide duplicate notification to the applicable Regional Administrator. If an owner or operator submits the information specified in this section at different times or in different submittals, later submittals may refer to earlier submittals instead of duplicating and resubmitting the information previously submitted. A complete notification of compliance status report must include:

(1) All information required in § 63.9(h) of this part. The owner or operator must provide a complete performance test report for each affected source and emission unit. A complete performance test report includes all data, associated measurements, and calculations (including visible emission and opacity tests);

(2) The approved site-specific test plan and performance evaluation test results for each continuous monitoring system (including a continuous emission or opacity monitoring system);

(3) Unit labeling as described in § 63.1506(b), including:

(i) Process type or furnace classification;

(ii) Applicable emission limit, operational standard, and control method;

(iii) Parameters to be monitored and the acceptable range of each monitored parameter; and

(iv) For existing group 1 furnaces or in-line fluxers that are part of a process train or a secondary aluminum processing unit, identification of all emission units in the process train or secondary aluminum processing unit.

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

(5) Design information and analysis, with supporting documentation, demonstrating conformance with the requirements for capture/collection systems in § 63.1506(c).

(6) If applicable, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in § 63.1510(f).

(7) Manufacturer specification or analysis documenting the design

residence time of no less than 1 second for each afterburner used to control emissions from a scrap dryer/delacquering/decoating kiln subject to alternative emission standards in § 63.1505(e);

(8) Approved site-specific monitoring plan for each group 1 furnace with no add-on air pollution control device.

(9) Operation, maintenance, and monitoring plan and Startup, shutdown, and malfunction plan, with revisions.

(10) If applicable, the approved site-specific secondary aluminum processing unit emissions plan with supporting documentation demonstrating compliance.

(11) If applicable, the quality improvement plan.

§ 63.1516 Reports.

(a) *Startup, shutdown, and malfunction plan/reports.* The owner or operator must develop and implement a written plan as described in § 63.6(e)(3) of this part that contains specific procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the standard. The owner or operator shall also keep records of each event as required by § 63.10(b) of this part and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in § 63.6(e)(3). In addition to the information required in § 63.6(e)(3), the plan must include:

(1) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; and

(2) Corrective actions to be taken in the event of a malfunction of a process or control device, including procedures for recording the actions taken to correct the malfunction or minimize emissions.

(b) *Excess emissions/summary report.* As required by § 63.10(e)(3) of the general provisions in subpart A of this part, the owner or operator must submit semi-annual reports within 60 days after the end of each 6-month period. Each report must contain the information specified in § 63.10(c) of the general provisions in subpart A of this part. When no exceedances of parameters have occurred, the owner or operator must submit a report stating that no excess emissions occurred during the reporting period.

(1) A report must be submitted if any of these conditions occur during a 6-month reporting period:

(i) The corrective action specified in the operation, maintenance, and monitoring plan for a bag leak detection system alarm was not initiated within 1-hour.

(ii) The corrective action specified in the operation, maintenance, and monitoring plan for a continuous opacity monitoring exceedance was not initiated within 1-hour.

(iii) The corrective action specified in the operation, maintenance, and monitoring plan for visible emissions from a scrap shredder was not initiated within 1-hour.

(iv) An excursion of a compliant process or operating parameter value or range (e.g., lime injection rate/schedule or screw feeder setting, total reactive chlorine flux injection rate/schedule, afterburner operating temperature, fabric filter inlet temperature, definition of acceptable scrap, or other approved operating parameter.

(v) An action taken during a startup, shutdown, or malfunction was not consistent with the procedures in the plan as described in § 63.6(e)(3).

(vi) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of this subpart.

(vii) An exceedance of the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit.

(2) Each report must include each of these certifications, as applicable:

(i) For each chip dryer: ''Only unpainted/uncoated aluminum chips were used as feedstock in any chip dryer during this reporting period.''

(ii) For each dross-only furnace: ''Only dross was used as the charge material in any dross-only furnace during this reporting period.''

(iii) For each side-well 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 side well and hearth during reactive fluxing and reactive flux was added only to the sidewell or to a furnace hearth equipped with an add-on air pollution control device for PM, HCl, and D/F emissions during this reporting period.''

(iv) For each group 1 melter/holder without add-on air pollution control devices and using pollution prevention measures that processes only clean charge material: ''Each group 1 furnace without add-on air pollution control devices subject to emission limits in § 63.1505(i)(2) processed only materials of pure aluminum, including molten aluminum, T-bar, sow, ingot, alloying elements, uncoated aluminum chips dried at 343°C (650°F) or higher, aluminum scrap dried, delacquered, or decoated at 482°C (900°F) or higher, and noncoated runaround scrap during this reporting period.''

(v) For each group 2 furnace: ''Only clean charge materials of pure aluminum, including molten aluminum, T-bar, sow, ingot, alloying elements, uncoated aluminum chips dried at 343°C (650°F or higher), aluminum scrap dried, delacquered, or decoated at 482°C (900°F) or higher, and noncoated runaround scrap were processed in any group 2 furnace during this reporting period and no fluxing was performed or all fluxing performed was conducted using only nonreactive, nonHAP-containing/nonHAP-generating fluxing gases or agents during this reporting period.''

(vi) For each in-line fluxer using no reactive flux: ''Only nonreactive, nonHAP-containing, nonHAP-generating flux gases, agents, or materials were used at any time during this reporting period.''

(3) The owner or operator must submit the results of any performance test conducted during the reporting period, including one complete report documenting test methods and procedures, process operation, and monitoring parameter ranges or values for each test method used for a particular type of emission point tested.

(c) *Annual compliance certifications.* For the purpose of annual certifications of compliance required by part 70 or 71 of this chapter, the owner or operator must certify continuing compliance based upon the following conditions:

(1) Any period of excess emissions, as defined in paragraph (b)(1) of this section, that occurred during the year were reported as required by this subpart; and

(2) All monitoring, recordkeeping, and reporting requirements were met during the year.

§ 63.1517 Records.

(a) As required by § 63.10(b) of the general provisions in subpart A of this part, the owner or operator shall maintain files of all information (including all reports and notifications) required by the general provisions and this subpart.

(1) The owner or operator must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site.

(2) The owner or operator may retain records on microfilm, on computer

disks, on magnetic tape, or on microfiche; and

(3) The owner or operator may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.

(b) In addition to the general records required by § 63.10(b) of this part, the owner or operator of a new or existing affected source (including an emission unit in a secondary aluminum processing unit) must maintain records of:

(1) For each affected source and emission unit with emissions controlled by a fabric filter or a lime-injected fabric filter:

(i) If a bag leak detection system is used, the number of total operating hours for the affected source or emission unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken.

(ii) If a continuous opacity monitoring system is used, records of opacity measurement data, including records where the average opacity of any 6-minute period exceeds 5 percent, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken.

(iii) If a scrap shredder is subject to visible emission observation requirements, records of all Method 9 observations, including records of any visible emissions during a 30-minute daily test, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken.

(2) For each affected source with emissions controlled by an afterburner:

(i) Records of 15-minute block average afterburner operating temperature, including any period when the average temperature in any 3-hour block period falls below the compliant operating parameter value with a brief explanation of the cause of the excursion and the corrective action taken; and

(ii) Records of annual afterburner inspections.

(3) For each affected source and emission unit subject to D/F and HCl emission standards with emissions controlled by a lime-injected fabric filter, records of 15-minute block average inlet temperatures for each lime-injected fabric filter, including any period when the 3-hour block average temperature exceeds the compliant operating parameter value +14° C (25°F), with a brief explanation of the cause of the excursion and the corrective action taken.

(4) For each affected source and emission unit with emissions controlled by a lime-injected fabric filter:

(i) Records of inspections at least once every 8-hour period verifying that lime is present in the feeder hopper or silo and flowing, including any inspection where blockage is found, with a brief explanation of the cause of the blockage and the corrective action taken, and records of inspections at least once every 4-hour period for the subsequent 3-days;

(ii) If lime feeder setting is monitored, records of daily inspections of feeder setting, including records of any deviation of the feeder setting from the setting used in the performance test, with a brief explanation of the cause of the deviation and the corrective action taken.

(iii) If lime injection rate (lb/hr) is monitored, records of 15-minute block average weight of lime and 3-hour block averages, including records of any period when the 3-hour block average rate or schedule falls below the compliant operating parameter value, with a brief explanation of the cause of the excursion and the corrective action taken;

(iv) If lime injection rate (lb/ton of feed) is monitored, records of 15-minute block average weights for each operating cycle or time period used in the performance test and lb/ton of feed calculations, including records of any period the lime injection rate or schedule falls below the compliant operating parameter value, with a brief explanation of the cause of the excursion and the corrective action taken;

(v) If lime addition rate for a noncontinuous lime injection system is monitored pursuant to the approved alternative monitoring requirements in § 63.1510(s), records of the time and mass of each lime addition during each operating cycle or time period used in the performance test and calculations of the average lime addition rate (lb/ton of feed).

(5) For each group 1 furnace (with or without add-on air pollution control devices) or in-line fluxer, records of 15-minute block average weights of gaseous or liquid reactive flux injection, total reactive chlorine flux injection rate and calculations (including records of the identity, composition, and weight of each addition of gaseous, liquid or solid reactive chlorine flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken.

(6) For each continuous monitoring system, records required by § 63.10(c) of this part.

(7) For each affected source and emission unit subject to an emission standard in kg/Mg (lb/ton) of feed, records of feed/charge (or throughput) weights for each operating cycle or time period used in the performance test.

(8) Approved site-specific monitoring plan for a group 1 furnace without add-on air pollution control devices with records documenting conformance with the plan.

(9) Records of all charge materials for each chip dryer, dross-only furnace, and group 1 melter/holder without air pollution control devices processing only clean charge.

(10) Operating logs for each group 1 sidewell furnace with add-on air pollution control devices documenting conformance with operating standards for maintaining the level of molten metal above the top of the passage between the sidewell and hearth during reactive flux injection and for adding reactive flux only to the sidewell or a furnace hearth equipped with a control device for PM, HCl, and D/F emissions.

(11) Operating logs for each in-line fluxer using no reactive flux materials documenting each flux gas, agent, or material used during each operating cycle.

(12) Records of all charge materials and fluxing materials or agents for a group 2 furnace.

(13) Records of monthly inspections for proper unit labeling for each affected source and emission unit.

(14) Records of annual inspections of emission capture/collection and closed vent systems.

(15) Records for any approved alternative monitoring or test procedure.

(16) Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:

(i) Startup, shutdown, and malfunction plan;

(ii) Operation, maintenance, and monitoring plan;

(iii) Site-specific secondary aluminum processing unit emission plan (if applicable); and

(iv) Quality improvement plan (if applicable).

(17) For each secondary aluminum processing unit, records of total charge weight for each 24-hour period and calculations of 3-day, 24-hour rolling average emissions.

Other

§ 63.1518 Applicability of general provisions.

The requirements of the general provisions in subpart A of this part that are applicable to the owner or operator subject to the requirements of this subpart are shown in appendix A to this subpart.

§ 63.1519 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 112(d) of the Act, the authorities contained in paragraph (b) of this section are retained by the Administrator and are not transferred to a State.

(b) Applicability determinations pursuant to § 63.1 of this part.

§ 63.1520 [Reserved]

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

Citation	Requirement	Applies to RRR	Comment
63.1(a)(1)–63.1(a)(4)	General Applicability	Yes	
63.1(a)(5)		No	[Reserved].
63.1(a)(6)–63.1(a)(8)		Yes	
63.1(a)(9)		No	[Reserved].
63.1(a)(10)–63.1(a)(14)		Yes	
63.1(b)	Initial Applicability Determination	Yes	EPA retains approval authority.
63.1(c)(1)	Applicability After Standard Established	Yes	
63.1(c)(2)		Yes	Some plants may be area sources.
63.1(c)(3)		No	[Reserved].
63.1(c)(4)–63.1(c)(5)		Yes	
63.1(d)		No	[Reserved].
63.1(e)	Applicability of Permit Program	Yes	
63.2	Definitions	Yes	Additional definitions in § 63.1503.
63.3	Units and Abbreviations	Yes	
63.4(a)(1)–63.4(a)(3)	Prohibited Activities	Yes	
63.4(a)(4)		No	[Reserved].
63.4(a)(5)		Yes	
63.4(b)–63.4(c)	Circumvention/Severability	Yes	
63.5(a)	Construction and Reconstruction-Applicability.	Yes	
63.5(b)(1)	Existing, New, Reconstructed Sources-Requirements.	Yes	
63.5(b)(2)		No	[Reserved].
63.5(b)(3)–63.5(b)(6)		Yes	
63.5(c)		No	[Reserved].
63.5(d)	Application for Approval of Construction/Reconstruction.	Yes	
63.5(e)	Approval of Construction/Reconstruction	Yes	
63.5(f)	Approval of Construction/Reconstruction Based on State Review.	Yes	
63.6(a)	Compliance with Standards and Maintenance-Applicability.	Yes	
63.6(b)(1)–63.6(b)(5)	New and Reconstructed Sources-Dates	Yes	
63.6(b)(6)		No	[Reserved].
63.6(b)(7)		Yes	
63.6(c)(1)	Existing Sources Dates	Yes	§ 63.1501 specifies dates.
63.6(c)(2)		Yes	
63.6(c)(3)–63.6(c)(4)		No	[Reserved].
63.6(c)(5)		Yes	
63.6(d)		No	[Reserved].
63.6(e)(1)–63.6(e)(2)	Operation & Maintenance Requirements	Yes	§ 63.1510 requires plan.
63.6(e)(3)	Startup, Shutdown, and Malfunction Plan.	Yes	
63.6(f)	Compliance with Emission Standards	Yes	
63.6(g)	Alternative Standard	No	
63.6(h)	Compliance with Opacity/VE Standards	Yes	
63.6(i)(1)–63.6(i)(14)	Extension of Compliance	Yes	
63.6(i)(15)		No	[Reserved].
63.6(i)(16)		Yes	
63.6(j)	Exemption from Compliance	Yes	
63.7(a)–(h)	Performance Test Requirements-Applicability and Dates.	Yes	§ 63.1511 requires repeat tests every 5 years.
63.7(b)	Notification	Yes	
63.7(c)	Quality Assurance/Test Plan	Yes	
63.7(d)	Testing Facilities	Yes	
63.7(e)	Conduct of Tests	Yes	
63.7(f)	Alternative Test Method	Yes	
63.7(g)	Data Analysis	Yes	
63.7(h)	Waiver of Tests	Yes	
63.8(a)(1)	Monitoring Requirements-Applicability	Yes	
63.8(a)(2)		Yes	
63.8(a)(3)		No	[Reserved].

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

Citation	Requirement	Applies to RRR	Comment
63.8(a)(4)		Yes	
63.8(b)	Conduct of Monitoring	Yes	
63.8(c)(1)–63.8(c)(3)	CMS Operation and Maintenance	Yes	
63.8(c)(4)–63.8(c)(8)		Yes	
63.8(d)	Quality Control	Yes	
63.8(e)	CMS Performance Evaluation	Yes	
63.8(f)(1)–63.8(f)(5)	Alternative Monitoring Method	Yes	§ 63.1510 includes approved alternative for non-continuous lime injection systems.
63.8(f)(6)	Alternative to RATA Test	Yes	
63.8(g)(1)	Data Reduction	Yes	
63.8(g)(2)		No	§ 63.1512 requires five 6-min averages for a scrap shredder.
63.8(g)(3)–63.8(g)(5)		Yes	
63.9(a)	Notification Requirements-Applicability	Yes	
63.9(b)	Initial Notifications	Yes	
63.9(c)	Request for Compliance Extension	Yes	
63.9(d)	New Source Notification for Special Compliance Requirements.	Yes	
63.9(e)	Notification of Performance Test	Yes	
63.9(f)	Notification of VE/Opacity Test	Yes	
63.9(g)	Additional CMS Notifications	Yes	
63.9(h)(1)–63.9(h)(3)	Notification of Compliance Status	Yes	
63.9(h)(4)		No	[Reserved].
63.9(h)(5)–63.9(h)(6)		Yes	
63.9(i)	Adjustment of Deadlines	Yes	
63.9(j)	Change in Previous Information	Yes	
63.10(a)	Recordkeeping/Reporting-Applicability	Yes	
63.10(b)	General Requirements	Yes	§ 63.1517 includes additional requirements.
63.10(c)(1)	Additional CMS Recordkeeping	Yes	
63.10(c)(2)–63.10(c)(4)		No	[Reserved].
63.10(c)(5)		Yes	
63.10(c)(6)		Yes	
63.10(c)(7)–63.10(c)(8)		Yes	
63.10(c)(9)		No	[Reserved].
63.10(c)(10) 63.10(c)(13)		Yes	
63.10(c)(14)		Yes	
63.10(d)(1)	General Reporting Requirements	Yes	
63.10(d)(2)	Performance Test Results	Yes	
63.10(d)(3)	Opacity or VE Observations	Yes	
63.10(d)(4) 63.10(d)(5)	Progress Reports/Startup, Shutdown, and Malfunction Reports.	Yes	
63.10(e)(1)–63.10(e)(2)	Additional CMS Reports	Yes	
63.10(e)(3)	Excess Emissions/CMS Performance Reports.	Yes	
63.10(e)(4)	COMS Data Reports	Yes	
63.10(f)	Recordkeeping/Reporting Waiver	Yes	
63.11(a)–(b)	Control Device Requirements	No	Flares not applicable.
63.12(a)–(c)	State Authority and Delegations	Yes	EPA retains authority for applicability determinations.
63.13	Addresses	Yes	
63.14	Incorporation by Reference	Yes	Chapters 3 and 5 of ACGIH Industrial Ventilation Manual for capture/collection systems.
63.15	Availability of Information/Confidentiality	Yes	

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