PROLOGUE

- **Bold ~~strikeout~~** and **underlines** are newly adopted federal changes to the Subpart RRR MACT standard.
- Normal ~~strikeout~~ and underlines include miscellaneous changes to correct technical errors, to improve clarity, and to provide consistency between this section and other sections in the Regulation 1138.
- Changes in the numbering system and errata corrections (spellings, punctuation, capitalization, etc) have not been shown using ~~strikeouts~~ and underlines.

REGULATION No. 1138
EMISSIONS STANDARDS FOR HAZARDOUS
AIR POLLUTANTS FOR SOURCE CATEGORIES

~~6/11/2003~~ ??/11/07
Section 12.0 ~~Subpart RRR~~ Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production

12.1 Applicability.

12.1.1 The requirements of Section 12.0 of this regulation apply to the owner or operator of each secondary aluminum production facility as defined in 12.4 of this section.

12.1.2 The requirements of Section 12.0 of this regulation apply to the following affected sources, located at a secondary aluminum production facility that is a major source of hazardous air pollutants (HAPs) as defined in Sec. 63.2 of subpart A of this regulation:

12.1.2.1 Each new and existing aluminum scrap shredder;

12.1.2.2 Each new and existing thermal chip dryer;

12.1.2.3 Each new and existing scrap dryer/delacquering kiln/decoating kiln;

12.1.2.4 Each new and existing group 2 furnace;

12.1.2.5 Each new and existing sweat furnace;

12.1.2.6 Each new and existing dross-only furnace;

12.1.2.7 Each new and existing rotary dross cooler; and

12.1.2.8 Each new and existing secondary aluminum processing unit.

12.1.3 The requirements of Section 12.0 of this regulation pertaining to dioxin and furan (D/F) emissions and associated operating, monitoring, reporting and recordkeeping requirements apply to the following affected sources, located at a secondary aluminum production facility that is an area source of HAPs as defined in Sec. 63.2 of subpart A of this regulation:

12.1.3.1 Each new and existing thermal chip dryer;

12.1.3.2 Each new and existing scrap dryer/delacquering kiln/decoating kiln;

12.1.3.3 Each new and existing sweat furnace; and

12.1.3.4 Each new and existing secondary aluminum processing unit, containing one or more group 1 furnace emission units processing other than clean charge.

12.1.4 The requirements of Section 12.0 of this regulation do not apply to facilities and equipment used for research and development that are not used to produce a saleable product.

12.1.5 **The owner or operator of an area source ~~a secondary aluminum production facility~~ subject to ~~the provisions of this subpart~~ Section 12.0 of this regulation is ~~subject to the title V permitting requirements~~ exempt from the obligation to obtain a Title V operating permit under Regulation 30 of State of Delaware "Regulations Governing the Control of Air Pollution", if the owner or operator is not required to obtain a Title V operating permit under subsection 3.a. of Regulation 30 for a reason other than the owner or operator's status as an area source under Section 12.0. ~~The Department defers the affected facility from the title V permitting requirements until December 9, 2004, if the secondary aluminum production facility is not a major source and is not located at a major source as defined in subpart A of this regulation, and is not otherwise required to obtain a title V permit. All sources receiving a deferral under this section shall submit a title V permit application by December 9, 2005. The affected facility~~ Notwithstanding the previous sentence, the owner or operator shall continue to comply with the provisions of ~~this subpart~~ Section 12.0 applicable to area sources ~~if a deferral from title V permitting requirements has been granted to the facility by the Department~~.**

12.1.6 An aluminum die casting, aluminum foundry, or aluminum extrusion facility shall be considered to be an area source if it does not emit, or have the potential to emit considering controls, 10 tons per year or more of any single listed HAP or 25 tons per year of any combination of listed HAP from all emission sources which are located in a contiguous area and under common control, without regard to whether or not such sources are regulated under Section 12.0 of this regulation or any other standard of this regulation. In the case of an aluminum die casting facility, aluminum foundry, or aluminum extrusion facility which is an area source and is subject to regulation under Section 12.0 only because it operates a thermal chip dryer, no furnace operated by such a facility shall be deemed to be subject to the requirements of Section 12.0 if it melts only clean charge, internal scrap, or customer returns.

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

12.2 Dates.

12.2.1 The owner or operator of an existing affected source must comply with the requirements of Section 12.0 of this regulation by June 11, 2003.

12.2.2 Except as provided in 12.2.3 of this section, the owner or operator of a new affected source that commences construction or reconstruction after February 11, 1999 must comply with the requirements of Section 12.0 of this regulation by June 11, 2003 or upon startup, whichever is later.

12.2.3 The owner or operator of any affected source which is constructed or reconstructed at any existing aluminum die casting facility, aluminum foundry, or aluminum extrusion facility which otherwise

meets the applicability criteria set forth in 12.1 of this section must comply with the requirements of Section 12.0 of this regulation by June 11, 2003 or upon startup, whichever is later.

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

12.3 Incorporation by reference.

12.3.1 The following material is incorporated by reference, as ~~in the corresponding sections~~ noted. This material is incorporated as it exists on March 23, 2000:

12.3.1.1 Chapters 3 and 5 of "Industrial Ventilation: A Manual of Recommended Practice" American Conference of Governmental Industrial Hygienists, (23rd edition, 1998), IBR approved for 12.7.3 of this section;

12.3.1.2 "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); and

12.3.1.3 "Fabric Filter Bag Leak Detection Guidance" (September 1997).

12.3.2 The material incorporated by reference is available for inspection at the Office of the Air Quality Management Section, 156 S. State Street, Dover, DE; the Office of the Federal Register, 800 North Capitol Street NW, Suite 700, Washington, DC; and at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M Street SW, Washington, DC. The material is also available for purchase from the following addresses:

12.3.2.1 Customer Service Department, American Conference of Governmental Industrial Hygienists (ACGIH), 1330 Kemper Meadow Drive, Cincinnati, OH 45240-1634, telephone number (513) 742-2020;

12.3.2.2 The National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA, NTIS no. PB 90-145756; and

12.3.2.3 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.

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

12.4 Definitions.

Unless defined below, all terms in Section 12.0 of this regulation have the meanings given them in the Act, or in subpart A of this regulation.

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 or a thermal oxidizer.

Aluminum scrap means fragments of aluminum stock removed during manufacturing (i.e., machining), manufactured aluminum articles or parts rejected or discarded and useful only as material for reprocessing, and waste and discarded material made of aluminum.

Aluminum scrap shredder means a unit that crushes, grinds, or breaks aluminum scrap into a more uniform size prior to processing or charging to a scrap dryer/delacquering kiln/decoating kiln, or furnace. A bale breaker is not an aluminum scrap shredder.

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, light transmittance, or other effect to monitor relative particulate matter loadings.

Chips means small, uniformly-sized, unpainted pieces of aluminum scrap, typically below 1 ¼ inches in any dimension, primarily generated by turning, milling, boring, and machining of aluminum parts.

Clean charge means furnace charge materials, including molten aluminum~~,~~ ; T-bar~~,~~ ; sow~~,~~ ; ingot~~,~~ ; billet~~,~~ ; pig~~,~~ ; alloying elements~~,~~ ; aluminum scrap known by the owner or operator to be entirely free of paints, coatings, and lubricants; uncoated/unpainted aluminum chips that have been thermally dried or treated by a centrifugal cleaner; aluminum scrap dried at 343 deg.C (650 deg.F) or higher; aluminum scrap delacquered/decoated at 482 deg.C (900 deg.F) or higher, and runaround scrap.

Cover flux means salt or salts added to the surface of molten aluminum in a group 1 or group 2 furnace, without agitation of the molten aluminum, for the purpose of preventing oxidation.

Customer returns means any aluminum product which is returned by a customer to the aluminum company that originally manufactured the product prior to resale of the product or further distribution in commerce, and which contains no paint or other solid coatings (i.e., lacquers).

D/F means dioxins and furans.

Dioxins and furans mean tetra-, penta-, hexa-, and octachlorinated dibenzo dioxins and furans.

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

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 and salt flux are the sole feedstocks to this type of furnace.

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

Fluxing means refining of molten aluminum to improve product quality, achieve product specifications, or reduce material loss, including the addition of solvents to remove impurities (solvent flux); and the injection of gases such as chlorine or chlorine mixtures, 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 that contains paint, lubricants, coatings, or other foreign materials with or without reactive fluxing, or processes clean charge with reactive fluxing.

Group 2 furnace means a furnace of any design that melts, holds, or processes only clean charge and that performs no fluxing or performs fluxing using only nonreactive, non-HAP-containing/non-HAP-generating gases or agents.

Hazardous air pollutant (HAP) means any air pollutant listed in or pursuant to section 112(b) of the Act.

HCl means, for the purposes of Section 12.0 of this regulation, emissions of hydrogen chloride that serve as a surrogate measure of the total emissions of hydrogen chloride, hydrogen fluoride, and chlorine.

In-line fluxer means a device exterior to a furnace, 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.

~~**Internal runaround means scrap material generated on-site by aluminum extruding, rolling, scalping, forging, forming/stamping, cutting, and trimming operations that do not contain paint or solid coatings. Aluminum chips generated by turning, boring, milling, and similar machining operations that have not been dried at 343 deg.C (650 deg.F) or higher, or by an equivalent non-thermal drying process, are not considered internal runaround.**~~

Internal scrap means all aluminum scrap regardless of the level of contamination which originates from castings or extrusions produced by an aluminum die casting facility, aluminum foundry, or aluminum extrusion facility, and which remains at all times within the control of the company that produced the castings or extrusions.

Lime means calcium oxide or other alkaline reagent.

Lime-injection means the continuous addition of lime upstream of a fabric filter.

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 except for purposes of alloy changes, off-specification product drains, or maintenance activities.

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 (the period from tap-to-tap).

PM means, for the purposes of Section 12.0 of this regulation, 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.

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

Reconstruction means the replacement of components of an affected source or emission unit such that 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 affected source, and it is technologically and economically feasible for the reconstructed source to meet relevant standard or standards established in Section 12.0 of this regulation. 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 repaired units. The 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.

Runaround scrap means scrap materials generated on-site by aluminum casting, extruding, rolling, scalping, forging, forming/stamping, cutting, and trimming operations and that do not contain paint or solid coatings. Uncoated/unpainted aluminum chips generated by turning, boring, milling, and similar machining operations may be clean charge if they have been thermally dried or treated by a centrifugal cleaner, but are not considered to be runaround scrap.

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

Secondary aluminum processing unit (SAPU). An existing SAPU means all existing group 1 furnaces and all existing in-line fluxers within a secondary aluminum production facility. Each existing group 1 furnace or existing in-line fluxer is considered an emission unit within a secondary aluminum processing unit. A new SAPU means any combination of individual group 1 furnaces and in-line fluxers within a secondary aluminum

processing facility which either were constructed or reconstructed after February 11, 1999, or have been permanently redesignated as new emission units pursuant to 12.6.11.6 of this section. Each of the group 1 furnaces or in-line fluxers within a new SAPU is considered an emission unit within that secondary aluminum processing unit.

Secondary aluminum production facility means any establishment using clean charge, aluminum scrap, or dross from aluminum production, as the raw material and performing one or more of the following processes: scrap shredding, scrap drying/delacquering/decoating, thermal chip drying, furnace operations (i.e., melting, holding, sweating, refining, fluxing, or alloying), recovery of aluminum from dross, inline fluxing, or dross cooling. A secondary aluminum production facility may be independent or part of a primary aluminum production facility. For purposes of Section 12.0 of this regulation, aluminum die casting facilities, aluminum foundries, and aluminum extrusion facilities are not considered to be secondary aluminum production facilities if the only materials they melt are clean charge, customer returns, or internal scrap, and if they do not operate sweat furnaces, thermal chip dryers, or scrap dryers/delacquering kilns/decoating kilns. The determination of whether a facility is a secondary aluminum production facility is only for purposes of Section 12.0 and any regulatory requirements which are derived from the applicability of Section 12.0, and is separate from any determination which may be made under other environmental laws and regulations, including whether the same facility is a "secondary metal production facility" as that term is used in the Act and in 3.1 of Regulation 1125 of State of Delaware "Regulations Governing the Control of Air Pollution" ~~Section 3.0(A)(1)(i) (''prevention of significant deterioration of air quality'')~~.

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 substantial quantities of metal by using heat to separate the low-melting point aluminum from the scrap while the higher melting-point metal remains in solid form. These units are also commonly known as dry hearth furnaces.

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).

THC means, for the purposes of Section 12.0 of this regulation, total hydrocarbon emissions that also serve as a surrogate for the emissions of organic HAP compounds.

Thermal chip dryer means a device that uses heat to evaporate oil or oil/water mixtures from unpainted/uncoated aluminum chips. Pre-heating boxes or other dryers which are used solely to remove water from aluminum scrap are not considered to be thermal chip dryers for purposes of Section 12.0 of this regulation.

Three-day, 24-hour rolling average means daily calculations of the average 24-hour emission rate (lbs/ton of feed/charge), over the 3 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, divided by the total weight of feed/charge, as determined by the procedure in 12.13.15 of this section.

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

12.5 [Reserved]

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

12.6 Emission standards for affected sources and emission units.

12.6.1 Summary. The owner or operator of a new or existing affected source must comply with each applicable limit in 12.6 of this section. Table 12.6-1 of Section 12.0 of this regulation summarizes the emission standards for each type of source.

12.6.2 Aluminum scrap shredder. On and after the compliance date established in 12.2 of this section, the owner or operator of an aluminum scrap shredder at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere:

12.6.2.1 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)) and

12.6.2.2 Visible emissions ~~(VE)~~ in excess of 10 percent opacity from any PM add-on air pollution control device if a Continuous Opacity Monitor (COM) or visible emissions monitoring is chosen as the monitoring option.

12.6.3 Thermal chip dryer. On and after the compliance date established in 12.2 of this section, the owner or operator of a thermal chip dryer must not discharge or cause to be discharged to the atmosphere emissions in excess of:

12.6.3.1 0.40 kilogram (kg) of THC, as propane, per megagram (Mg) (0.80 lb of THC, as propane, per ton) of feed/charge from a thermal chip dryer at a secondary aluminum production facility that is a major source and

12.6.3.2 2.50 micrograms (µg) of D/F TEQ per Mg (3.5×10^{-5} gr per ton) of feed/charge from a thermal chip dryer at a secondary aluminum production facility that is a major or area source.

12.6.4 Scrap dryer/delacquering kiln/decoating kiln. On and after the compliance date established in 12.2 of this section:

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

12.6.4.1.1 0.03 kg of THC, as propane, per Mg (0.06 lb of THC, as propane, per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source;

12.6.4.1.2 0.04 kg of PM per Mg (0.08 lb per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source;

12.6.4.1.3 0.25 µg of D/F TEQ per Mg (3.5 x 10^{-6} gr of D/F TEQ per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major or area source; and

12.6.4.1.4 0.40 kg of HCl per Mg (0.80 lb per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source.

12.6.4.2 The owner or operator of a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere 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.

12.6.5 Scrap dryer/delacquering kiln/decoating kiln: alternative limits. The owner or operator of a scrap dryer/delacquering kiln/decoating kiln may choose to comply with the emission limits in 12.6.5.1 and 12.6.5.2 of this section as an alternative to the limits in 12.6.4 of this section if the scrap dryer/delacquering kiln/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 760 deg.C (1400 deg.F) at all times. On and after the compliance date established in 12.2 of this section:

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

12.6.5.1.1 0.10 kg of THC, as propane, per Mg (0.20 lb of THC, as propane, per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source;

12.6.5.1.2 0.15 kg of PM per Mg (0.30 lb per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source;

12.6.5.1.3 5.0 µg of D/F TEQ per Mg (7.0 x 10^{-5} gr of D/F TEQ per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major or area source; and

12.6.5.1.4 0.75 kg of HCl per Mg (1.50 lb per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source.

12.6.5.2 The owner or operator of a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere 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.

12.6.6 Sweat furnace. The owner or operator of a sweat furnace shall comply with the emission standard in 12.6.6.2 of this section.

12.6.6.1 The owner or operator is not required to conduct a performance test to demonstrate compliance with the emission standard in 12.6.6.2 of this section, provided that, on and after the compliance date of this rule, the owner or operator operates and maintains an afterburner with a design residence time of 0.8 seconds or greater and an operating temperature of 872 deg.C (1600 deg.F) or greater.

12.6.6.2 On and after the compliance date established in 12.2 of this section, 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 emissions in excess of 0.80 nanogram (ng) of D/F TEQ per dscm (3.5×10^{-10} gr per dscf) at 11 percent oxygen (O_2).

12.6.7 Dross-only furnace. On and after the compliance date established in 12.2 of this section, 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:

12.6.7.1 Emissions in excess of 0.15 kg of PM per Mg (0.30 lb of PM per ton) of feed/charge <u>and</u>

12.6.7.2 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.

12.6.8 Rotary dross cooler. On and after the compliance date established in 12.2 of this section, 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:

12.6.8.1 Emissions in excess of 0.09 g of PM per dscm (0.04 gr per dscf) <u>and</u>

12.6.8.2 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.

12.6.9 Group 1 furnace. The owner or operator of a group 1 furnace must use the limits in 12.6.9.1 through 12.6.9.7 of this section to determine the emission standards for a SAPU.

12.6.9.1 0.20 kg of PM per Mg (0.40 lb of PM per ton) of feed/charge from a group 1 furnace, that is not a melting/holding furnace processing only clean charge, at a secondary aluminum production facility that is a major source;

12.6.9.2 0.40 kg of PM per Mg (0.80 lb of PM per ton) of feed/charge from a group 1 melting/holding furnace processing only clean charge at a secondary aluminum production facility that is a major source;

12.6.9.3 15 μg of D/F TEQ per Mg (2.1×10^{-4} gr of D/F TEQ per ton) of feed/charge 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

12.6.9.4 0.20 kg of HCl per Mg (0.40 lb of HCl per ton) of feed/charge or, if the furnace is equipped with an add-on air pollution control device, 10 percent of the uncontrolled HCl emissions, by weight, for a group 1 furnace at a secondary aluminum production facility that is a major source.

12.6.9.5 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 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.

12.6.9.6 The owner or operator may determine the emission standards for a SAPU by applying the group 1 furnace limits on the basis of the aluminum production weight in each group 1 furnace, rather than on the basis of feed/charge.

12.6.9.7 The owner or operator of a sidewell group 1 furnace that conducts reactive fluxing (except for cover flux) in the hearth, or that conducts reactive fluxing in the sidewell at times when the level of molten metal falls below the top of the passage between the sidewell and the hearth, must comply with the emission limits in 12.6.9.1 through 12.6.9.4 of this section on the basis of the combined emissions from the sidewell and the hearth.

12.6.10 In-line fluxer. Except as provided in 12.6.10.3 of this section for an in-line fluxer using no reactive flux material, the owner or operator of an in-line fluxer must use the limits in 12.6.10.1 through 12.6.10.5 of this section to determine the emission standards for a SAPU.

12.6.10.1 0.02 kg of HCl per Mg (0.04 lb of HCl per ton) of feed/charge and

12.6.10.2 0.005 kg of PM per Mg (0.01 lb of PM per ton) of feed/charge.

12.6.10.3 The emission limits in 12.6.10.1 and 12.6.10.2 of this section do not apply to an in-line fluxer that uses no reactive flux materials.

12.6.10.4 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 visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device used to control emissions from the in-line fluxer, if a COM is chosen as the monitoring option.

12.6.10.5 The owner or operator may determine the emission standards for a SAPU by applying the in-line fluxer limits on the basis of the aluminum production weight in each in-line fluxer, rather than on the basis of feed/charge.

12.6.11 Secondary aluminum processing unit. On and after the compliance date established in 12.2 of this section, the owner or operator must comply with the emission limits calculated using the equations for PM and HCl in 12.6.11.1 and 12.6.11.2 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 12.6.11.3 of this section for each secondary aluminum processing unit at a secondary aluminum production facility that is a major or area source.

12.6.11.1 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:

~~$Lc_{PM} = [3(Lti_{PM} \times Tti)] / [3(Tti)]$ (Eq. 1)~~

$$Lc_{PM} = \sum_{i=1}^{n} Lti_{PM} * Tti \Big/ \sum_{i=1}^{n} Tti \qquad (1)$$

where,

Lti_{PM} = The PM emission limit for individual emission unit i in 12.6.9.1 and 12.6.9.2 of this section for a group 1 furnace or in 12.6.10.2 of this section for an in-line fluxer;
Tti = The feed/charge rate, for an operating cycle, for individual emission unit i; ~~and~~
Lc_{PM} = The PM emission limit for the secondary aluminum processing unit; and
n = The total number of emission units.

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

12.6.11.2 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:

~~Lc_{HCl} = [3(Lti_{HCl} x Tti)] / [3(Tti)] (Eq. 2)~~

$$Lc_{HCl} = \sum_{i=1}^{n} Lti_{HCl} * Tti \Big/ \sum_{i=1}^{n} Tti \qquad (2)$$

where,

Lti_{HCl} = The HCl emission limit for individual emission unit i in 12.6.9.4 of this section for a group 1 furnace or in 12.6.10.1 of this section for an in-line fluxer; ~~and~~
Tti = The feed/charge rate, for an operating cycle, for individual emission unit i;
Lc_{HCl} = The HCl emission limit for the secondary aluminum processing unit; and
n = The total number of emission units.

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

12.6.11.3 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:

~~$Lc_{D/F}$ = [3($Lti_{D/F}$ x Tti)] / [3(Tti)] (Eq. 3)~~

$$Lc_{D/F} = \sum_{i=1}^{n} Lti_{D/F} * Tti \Big/ \sum_{i=1}^{n} Tti \qquad (3)$$

where,

$Lti_{D/F}$ = The D/F emission limit for individual emission unit i in 12.6.9.3 of this section for a group 1 furnace; ~~and~~
Tti = The feed/charge rate, for an operating cycle, for individual emission unit i;
$Lc_{D/F}$ = The D/F emission limit for the secondary aluminum processing unit; and
n = The total number of emission units.

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

12.6.11.4 The owner or operator of a SAPU at a secondary aluminum production facility that is a major source may demonstrate compliance with the emission limits in 12.6.11.1 through 12.6.11.3 of this section by demonstrating that each emission unit within the SAPU is in compliance with the applicable emission limits in 12.6.9 and 12.6.10 of this section.

12.6.11.5 The owner or operator of a SAPU at a secondary aluminum production facility that is an area source may demonstrate compliance with the emission limits in 12.6.11.3 of this section by demonstrating that each emission unit within the SAPU is in compliance with the emission limit in 12.6.9.3 of this section.

12.6.11.6 With the prior approval of the Department, an owner or operator may redesignate any existing group 1 furnace or in-line fluxer at a secondary aluminum production facility as a new emission unit. Any emission unit so redesignated may thereafter be included in a new SAPU at that facility. Any such redesignation will be solely for the purpose of Section 12.0 of this regulation and will be irreversible.

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

12.7 Operating requirements.

12.7.1 Summary.

12.7.1.1 On and after the compliance date established in 12.2 of this section, the owner or operator must operate all new and existing affected sources and control equipment according to the requirements in 12.7 of this section.

12.7.1.2 The owner or operator of an existing sweat furnace that meets the specifications in 12.6.6.1 of this section must operate the sweat furnace and control equipment according to the requirements in 12.7 of this section on and after the compliance date established in 12.2 of this section.

12.7.1.3 The owner or operator of a new sweat furnace that meets the specifications in 12.6.6.1 of this section must operate the sweat furnace and control equipment according to the requirements in 12.7 of this section by June 11, 2003 or upon startup, whichever is later.

12.7.1.4 Operating requirements are summarized in Table 12.7-1 of Section 12.0 of this regulation.

12.7.2 Labeling. The owner or operator must provide and maintain easily visible labels posted at each sweat furnace, group 1 furnace, group 2 furnace, in-line fluxer and scrap dryer/delacquering kiln/decoating kiln that identifies the applicable emission limits and means of compliance, including:

12.7.2.1 The type of affected source or emission unit (e.g., scrap dryer/delacquering kiln/decoating kiln, sweat furnace, group 1 furnace, group 2 furnace, in-line fluxer).

12.7.2.2 The applicable operational standard or standards and control method or methods (e.g., work practice or control device). This includes, but is not limited to, the type of charge to be used for a furnace (e.g., clean scrap only, all scrap, etc.), flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated in the Operating, Maintenance and Monitoring (OM&M) plan.

12.7.2.3 The afterburner operating temperature and design residence time for a scrap dryer/delacquering kiln/decoating kiln or sweat furnace.

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

12.7.3.1 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 Manual of Recommended Practice" (incorporated by reference in 12.3 of Section 12.0 of this regulation);

12.7.3.2 Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to a fabric filter; and

12.7.3.3 Operate each capture/collection system according to the procedures and requirements in the OM&M plan.

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

12.7.4.1 Except as provided in 12.7.4.3 of this section, install and operate a device that measures and records or otherwise determines the weight of feed/charge (or throughput) for each operating cycle or time period used in the performance test~~.~~ and

12.7.4.2 Operate each weight measurement system or other weight determination procedure in accordance with the OM&M plan.

12.7.4.3 The owner or operator may chose to measure and record aluminum production weight from an affected source or emission unit rather than feed/charge weight to an affected source or emission unit, provided that:

12.7.4.3.1 The aluminum production weight, rather than feed/charge weight is measured and recorded for all emission units within a SAPU and

12.7.4.3.2 All calculations to demonstrate compliance with the emission limits for SAPUs are based on aluminum production weight rather than feed/charge weight.

12.7.5 Aluminum scrap shredder. The owner or operator of a scrap shredder with emissions controlled by a fabric filter must operate a bag leak detection system, a continuous opacity monitor, or conduct visible emissions observations.

12.7.5.1 If a bag leak detection system is used to meet the monitoring requirements in 12.11 of this section, the owner or operator must:

12.7.5.1.1 Initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the OM&M plan~~.~~ and

12.7.5.1.2 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 1 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.

12.7.5.2 If a continuous opacity monitoring system is used to meet the monitoring requirements in 12.11 of this section, 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 OM&M plan.

12.7.5.3 If visible emission observations are used to meet the monitoring requirements in 12.11 of this section, the owner or operator must initiate corrective action within 1-hour of any observation of visible emissions in excess of 10 percent opacity during a daily visible emissions test and complete the corrective action procedures in accordance with the OM&M plan.

12.7.6 Thermal chip dryer. The owner or operator of a thermal chip dryer with emissions controlled by an afterburner must:

12.7.6.1 Maintain the 3-hour block average operating temperature of each afterburner at or above the average temperature established during the performance test;

12.7.6.2 Operate each afterburner in accordance with the OM&M plan; <u>and</u>

12.7.6.3 Operate each thermal chip dryer using only unpainted aluminum chips as the feedstock.

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

12.7.7.1 For each afterburner,

12.7.7.1.1 Maintain the 3-hour block average operating temperature of each afterburner at or above the average temperature established during the performance test~~.~~ <u>and</u>

12.7.7.1.2 Operate each afterburner in accordance with the OM&M plan.

12.7.7.2 If a bag leak detection system is used to meet the fabric filter monitoring requirements in 2.11 of this section,

12.7.7.2.1 Initiate corrective action within 1-hour of a bag leak detection system alarm and complete any necessary corrective action procedures in accordance with the OM&M plan~~.~~ <u>and</u>

12.7.7.2.2 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 1 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.

12.7.7.3 If a continuous opacity monitoring system is used to meet the monitoring requirements in 12.11 of this section, 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 OM&M plan.

12.7.7.4 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 deg.C (plus 25 deg.F).

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

12.7.8 Sweat furnace. The owner or operator of a sweat furnace with emissions controlled by an afterburner must:

12.7.8.1 Maintain the 3-hour block average operating temperature of each afterburner at or above:

12.7.8.1.1 The average temperature established during the performance test or

12.7.8.1.2 872 deg.C (1600 deg.F) if a performance test was not conducted, and the afterburner meets the specifications in 12.6.6.1 of this section.

12.7.8.2 Operate each afterburner in accordance with the OM&M plan.

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

12.7.9.1 If a bag leak detection system is used to meet the monitoring requirements in 12.11 of this section,

12.7.9.1.1 Initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the OM&M plan~~.~~ and

12.7.9.1.2 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 1 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.

12.7.9.2 If a continuous opacity monitoring system is used to meet the monitoring requirements in 12.11 of this section, 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 OM&M plan.

12.7.9.3 Operate each furnace using dross **and salt flux** as the sole feedstock.

12.7.10 Rotary dross cooler. The owner or operator of a rotary dross cooler with emissions controlled by a fabric filter must:

12.7.10.1 If a bag leak detection system is used to meet the monitoring requirements in 12.11 of this section,

12.7.10.1.1 Initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the OM&M plan~~.~~ and

12.7.10.1.2 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 1 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.

12.7.10.2 If a continuous opacity monitoring system is used to meet the monitoring requirements in 12.11 of this section, 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 OM&M plan.

12.7.11 In-line fluxer. The owner or operator of an in-line fluxer with emissions controlled by a lime-injected fabric filter must:

12.7.11.1 If a bag leak detection system is used to meet the monitoring requirements in 12.11 of this section,

12.7.11.1.1 Initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the OM&M plan~~.~~ <u>and</u>

12.7.11.1.2 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 1 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.

12.7.11.2 If a continuous opacity monitoring system is used to meet the monitoring requirements in 12.11 of this section, 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 OM&M plan.

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

12.7.11.4 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.

12.7.12 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.

12.7.13 Group 1 furnace with add-on air pollution control devices. The owner or operator of a group 1 furnace with emissions controlled by a lime-injected fabric filter must:

12.7.13.1 If a bag leak detection system is used to meet the monitoring requirements in 12.11 of this section, the owner or operator must:

12.7.13.1.1 Initiate corrective action within 1 hour of a bag leak detection system alarm;

12.7.13.1.2 Complete the corrective action procedures in accordance with the OM&M plan; <u>and</u>

12.7.13.1.3 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 1 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.

12.7.13.2 If a continuous opacity monitoring system is used to meet the monitoring requirements in 12.11 of this section, the owner or operator must:

12.7.13.2.1 Initiate corrective action within 1 hour of any 6-minute average reading of 5 percent or more opacity and

12.7.13.2.2 Complete the corrective action procedures in accordance with the OM&M plan.

12.7.13.3 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 deg.C (plus 25 deg.F).

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

12.7.13.5 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.

12.7.13.6 Operate each sidewell furnace such that:

12.7.13.6.1 The level of molten metal remains above the top of the passage between the sidewell and hearth during reactive flux injection, unless emissions from both the sidewell and the hearth are included in demonstrating compliance with all applicable emission limits~~.~~ <u>and</u>

12.7.13.6.2 Reactive flux is added only in the sidewell, unless emissions from both the sidewell and the hearth are included in demonstrating compliance with all applicable emission limits.

12.7.14 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:

12.7.14.1 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;

12.7.14.2 Operate each furnace in accordance with the work practice/pollution prevention measures documented in the OM&M plan and within the parameter values or ranges established in the OM&M plan; and

12.7.14.3 Operate each group 1 melting/holding furnace subject to the emission standards in 12.6.9.2 of this section using only clean charge as the feedstock.

12.7.15 Group 2 furnace. The owner or operator of a new or existing group 2 furnace must:

12.7.15.1 Operate each furnace using only clean charge as the feedstock~~.~~ and

12.7.15.2 Operate each furnace using no reactive flux.

12.7.16 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 and incorporated in the OM&M plan, the owner or operator must initiate corrective action. Corrective action 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 or levels 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.

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

12.8 through 12.10 [Reserved]

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

12.11 Monitoring requirements.

12.11.1 Summary. On and after the compliance date established in 12.2 of this section, 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 12.11 of this section. Monitoring requirements for each type of affected source and emission unit are summarized in Table 12.11-1 of Section 12.0 of this regulation.

12.11.2 Operation, maintenance, and monitoring (OM&M) plan. The owner or operator must prepare and implement for each new or existing affected source and emission unit, a written OM&M plan. The owner or operator of an existing affected source must submit the OM&M plan to the Department no later than the compliance date established in 12.2.1 of this section. The owner or operator of any new affected source must submit the OM&M plan to the Department within 90 days after a successful initial performance test ~~under~~ required in 12.12.2 of this section, or within 90 days after the compliance date established in 12.2.2 of this section if no initial performance test is required. The plan must be accompanied by a written certification by the owner or operator that the OM&M plan satisfies all requirements in 12.11 of this section and is otherwise consistent with the requirements of Section 12.0 of this regulation. The owner or operator must comply with all of the provisions of the OM&M plan as submitted to the Department, unless and until the plan is revised in accordance with the following procedures. If the Department determines at any time after receipt of the OM&M plan that any revisions of the plan are necessary to satisfy the requirements of Section 12.0, the owner or operator must promptly make all necessary revisions and resubmit the revised plan. If the owner or operator determines that any other revisions of the OM&M plan are necessary, such revisions will not become effective until the owner or operator submits a description of the changes and a revised plan incorporating them to the Department. Each plan must contain the following information:

12.11.2.1 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.

12.11.2.2 A monitoring schedule for each affected source and emission unit.

12.11.2.3 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 12.6 of this section.

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

12.11.2.4.1 Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions and

12.11.2.4.2 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 regulation.

12.11.2.5 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.

12.11.2.6 Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in 12.11.2.1 of this section, including:

12.11.2.6.1 Procedures to determine and record the cause of a deviation or excursion, and the time the deviation or excursion began and ended and

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

12.11.2.7 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.

12.11.2.8 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 12.11.15 of this section for each group 1 furnace not equipped with an add-on air pollution control device.

12.11.3 Labeling. The owner or operator must inspect the labels for each group 1 furnace, group 2 furnace, in-line fluxer, sweat furnace, and scrap dryer/delacquering kiln/decoating kiln at least once per calendar month to confirm that posted labels as required by the operational standard in 12.7.2 of this section are intact and legible.

12.11.4 Capture/collection system. The owner or operator must:

12.11.4.1 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

12.11.4.2 Inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in 12.7.3 of this section and record the results of each inspection.

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

12.11.5.1 The accuracy of the weight measurement device or procedure must be ±1 percent of the weight being measured. The owner or operator may apply to the Department for approval to use a device of alternative accuracy if the required accuracy cannot be achieved as a result of equipment layout or charging practices. A device of alternative accuracy will not be approved unless the owner or operator provides assurance through data and information that the affected source will meet the relevant emission standard.

12.11.5.2 The owner or operator must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, which shall not exceed 6 months, or if no calibration schedule is specified, at least once every 6 months.

12.11.6 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 Section 12.0 of this regulation must install, calibrate, maintain, and continuously operate a bag leak detection system as required in 12.11.6.1 of this section or a continuous opacity monitoring system as required in 12.11.6.2 of this section. The owner or operator of an aluminum scrap shredder must install and operate a bag leak detection system as required in 12.11.6.1 ~~of this section~~, install and operate a

continuous opacity monitoring system as required in 12.11.6.2 ~~of this section~~, or conduct visible emission observations as required in 12.11.6.3 of this section.

12.11.6.1 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.

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

12.11.6.1.2 Each triboelectric bag leak detection system must be installed, calibrated, operated, and maintained according to the "Fabric Filter Bag Leak Detection Guidance" (September 1997). Other bag leak detection systems must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

12.11.6.1.3 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.

12.11.6.1.4 The bag leak detection system sensor must provide output of relative or absolute PM loadings.

12.11.6.1.5 The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

12.11.6.1.6 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.

12.11.6.1.7 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.

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

12.11.6.1.9 The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.

12.11.6.1.10 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 OM&M 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.

12.11.6.2 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.

12.11.6.2.1 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.

12.11.6.2.2 Each continuous opacity monitoring system must meet the design and installation requirements of Performance Specification 1 in Appendix B to 40 CFR Part 60 ~~(July 1, 2002 edition)~~.

12.11.6.3 These requirements apply to the owner or operator of a new or existing aluminum scrap shredder who conducts visible emission observations. The owner or operator must:

12.11.6.3.1 Perform a visible emissions test for each aluminum scrap shredder using a certified observer at least once a day according to the requirements of Method 9 in Appendix A to 40 CFR Part 60 ~~(July 1, 2002 edition)~~. Each Method 9 test must consist of five 6-minute observations in a 30-minute period and

12.11.6.3.2 Record the results of each test.

12.11.7 Afterburner. These requirements apply to the owner or operator of an affected source using an afterburner to comply with the requirements of Section 12.0 of this regulation.

12.11.7.1 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 regulation.

12.11.7.2 The temperature monitoring device must meet each of these performance and equipment specifications:

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

12.11.7.2.2 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.

12.11.7.2.3 The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in 12.13.13 of this section.

12.11.7.2.4 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.

12.11.7.3 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:

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

12.11.7.3.2 Inspection for proper adjustment of combustion air;

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

12.11.7.3.4 Inspection of dampers, fans, and blowers for proper operation;

12.11.7.3.5 Inspection for proper sealing;

12.11.7.3.6 Inspection of motors for proper operation;

12.11.7.3.7 Inspection of combustion chamber refractory lining and clean and replace lining as necessary;

12.11.7.3.8 Inspection of afterburner shell for corrosion or hot spots;

12.11.7.3.9 Documentation, for the burn cycle that follows the inspection, that the afterburner is operating properly and any necessary adjustments have been made; and

12.11.7.3.10 Verification that the equipment is maintained in good operating condition.

12.11.7.3.11 Following an equipment inspection, all necessary repairs must be completed in accordance with the requirements of the OM&M plan.

12.11.8 Fabric filter inlet temperature. These requirements apply to the owner or operator of a scrap dryer/delacquering kiln/decoating kiln or a group 1 furnace using a lime-injected fabric filter to comply with the requirements of Section 12.0 of this regulation.

12.11.8.1 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 regulation.

12.11.8.2 The temperature monitoring device must meet each of these performance and equipment specifications:

12.11.8.2.1 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.

12.11.8.2.2 The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in 12.13.14 of this section.

12.11.8.2.3 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.

12.11.9 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 Section 12.0 of this regulation.

12.11.9.1 The owner or operator of a continuous lime injection system must verify that lime is always free-flowing by either:

12.11.9.1.1 Inspecting each feed hopper or silo at least once each 8-hour period and recording the results of each inspection. If lime is found not to be free-flowing during any of the 8-hour periods, the owner or operator must increase the frequency of inspections to at least once every 4-hour period for the next 3 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; or

12.11.9.1.2 Subject to the approval of the Department, installing, operating and maintaining a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system or other system to confirm that lime is free-flowing. If lime is found not to be free-flowing, the owner or operator must promptly initiate and complete corrective action; or

12.11.9.1.3 Subject to the approval of the Department, installing, operating and maintaining a device to monitor the concentration of HCl at the outlet of the fabric filter. If an increase in the concentration of HCl indicates that the lime is not free-flowing, the owner or operator must promptly initiate and complete corrective action.

12.11.9.2 The owner or operator of a continuous lime injection system must record the lime feeder setting once each day of operation.

12.11.9.3 An owner or operator who intermittently adds lime to a lime coated fabric filter must obtain approval from the Department for a lime addition monitoring procedure. The Department will not approve a monitoring procedure unless data and information are submitted establishing that the procedure is adequate to ensure that relevant emission standards will be met on a continuous basis.

12.11.10 Total reactive 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. The owner or operator must:

12.11.10.1 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.

12.11.10.1.1 The monitoring system must record the weight for each 15-minute block period, during which reactive fluxing occurs, over the same operating cycle or time period used in the performance test.

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

12.11.10.1.3 The owner or operator must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, which shall not exceed 6 months, or if no calibration schedule is specified, at least once every 6 months.

12.11.10.2 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 12.13.15 of this section.

12.11.10.3 Record, for each 15-minute block period during each operating cycle or time period used in the performance test during which reactive fluxing occurs, the time, weight, and type of flux for each addition of:

12.11.10.3.1 Gaseous or liquid reactive flux other than chlorine and

12.11.10.3.2 Solid reactive flux.

12.11.10.4 Calculate and record the total reactive flux injection rate for each operating cycle or time period used in the performance test using the procedure in 12.13.15 of this section.

12.11.10.5 The owner or operator of a group 1 furnace or in-line fluxer performing reactive fluxing may apply to the Administrator for approval of an alternative method for monitoring and recording the total reactive flux addition rate based on monitoring the weight or quantity of reactive flux per ton of feed/charge for each operating cycle or time period used in the performance test in accordance with 40 CFR 63.1510(j)(5) ~~(July 1, 2002 edition)~~.

12.11.11 Thermal chip dryer. These requirements apply to the owner or operator of a thermal chip dryer with emissions controlled by an afterburner. The owner or operator must:

12.11.11.1 Record the type of materials charged to the unit for each operating cycle or time period used in the performance test.

12.11.11.2 Submit a certification of compliance with the applicable operational standard for charge materials in 12.7.6.3 of this section for each 6-month reporting period. Each certification must contain the information in 12.17.2.2.1 of this section.

12.11.12 Dross-only furnace. These requirements apply to the owner or operator of a dross-only furnace. The owner or operator must:

12.11.12.1 Record the materials charged to each unit for each operating cycle or time period used in the performance test.

12.11.12.2 Submit a certification of compliance with the applicable operational standard for charge materials in 12.7.9.3 of this section for each 6-month reporting period. Each certification must contain the information in 12.17.2.2.2 of this section.

12.11.13 In-line fluxers using no reactive flux. The owner or operator of an in-line fluxer that uses no reactive flux materials must submit a certification of compliance with the operational standard for no reactive flux materials in 12.7.12 of this section for each 6-month reporting period. Each certification must contain the information in 12.17.2.2.6 of this section.

12.11.14 Sidewell group 1 furnace with add-on air pollution control devices. These requirements apply to the owner or operator of a sidewell group 1 furnace using add-on air pollution control devices. The owner or operator must:

12.11.14.1 Record in an operating log for each charge of a sidewell furnace that the level of molten metal was above the top of the passage between the sidewell and hearth during reactive flux injection, unless the furnace hearth was also equipped with an add-on control device.

12.11.14.2 Submit a certification of compliance with the operational standards in 12.7.13.6 of this section for each 6-month reporting period. Each certification must contain the information in 12.17.2.2.3 of this section.

12.11.15 Group 1 furnace without add-on air pollution control devices. These requirements apply to the owner or operator of a group 1 furnace that is not equipped with an add-on air pollution control device.

12.11.15.1 The owner or operator must develop, in consultation with the Department, a written site-specific monitoring plan. The site-specific monitoring plan must be submitted to the Department as part of the OM&M plan. The site-specific monitoring plan must contain sufficient procedures to ensure continuing compliance with all applicable emission limits and must demonstrate, based on documented test results, the relationship between emissions of PM, HCl, and D/F and the proposed monitoring parameters for each pollutant. Test data must establish the highest level of PM, HCl, and D/F that will be emitted from the furnace. This may be determined by conducting performance tests and monitoring operating parameters while charging the furnace with feed/charge materials containing the highest anticipated levels of oils and coatings and fluxing at the highest anticipated rate. If the Department determines that any revisions of the site-specific monitoring plan are necessary to meet the requirements of Section 12.0 of this regulation, the owner or operator must promptly make all necessary revisions and resubmit the revised plan to the Department.

12.11.15.1.1 The owner or operator of an existing affected source must submit the site-specific monitoring plan to the Department for review at least 6 months prior to the compliance date, but no earlier than May 11, 2003.

12.11.15.1.2 The Department 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 establish the highest level of PM, HCl, and D/F that will be emitted from the furnace. Subject to Department approval of the OM&M plan, this may be determined by conducting performance tests and monitoring operating parameters while charging the furnace with feed/charge materials containing the highest anticipated levels of oils and coatings and fluxing at the highest anticipated rate.

12.11.15.2 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.

12.11.15.3 Each site-specific monitoring plan must include provisions for unit labeling as required in 12.11.3 of this section, feed/charge weight measurement (or production weight measurement) as required in 12.11.5 of this section and flux weight measurement as required in 12.11.10 of this section.

12.11.15.4 Each site-specific monitoring plan for a melting/holding furnace subject to the clean charge emission standard in 12.6.9.3 of this section must include these requirements:

12.11.15.4.1 The owner or operator must record the type of feed/charge (e.g., ingot, thermally dried chips, dried scrap, etc.) for each operating cycle or time period used in the performance test and

12.11.15.4.2 The owner or operator must submit a certification of compliance with the applicable operational standard for clean charge materials in 12.7.14.3 of this section for each 6-month reporting period. Each certification must contain the information in 12.17.2.2.4 of this section.

12.11.15.5 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 in accordance with all applicable requirements of ~~the general provisions in~~ subpart A of this regulation.

12.11.15.6 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 in accordance with all applicable requirements of Section 12.0 of this regulation.

12.11.15.7 If a site-specific monitoring plan includes a scrap inspection program for monitoring the scrap contaminant level of furnace feed/charge materials, the plan must include provisions for the demonstration and implementation of the program in accordance with all applicable requirements in 12.11.16 of this section.

12.11.15.8 If a site-specific monitoring plan includes a calculation method for monitoring the scrap contaminant level of furnace feed/charge materials, the plan must include provisions for the demonstration and implementation of the program in accordance with all applicable requirements in 12.11.17 of this section.

12.11.16 Scrap inspection program for group 1 furnace without add-on air pollution control devices. A scrap inspection program must include:

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

12.11.16.2 A scrap inspector training program;

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

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

12.11.16.5 A system for assuring that only acceptable scrap is charged to an affected group 1 furnace; and

12.11.16.6 Recordkeeping requirements to document conformance with plan requirements.

12.11.17 Monitoring of scrap contamination level by calculation method for group 1 furnace without add-on air pollution control devices. The owner or operator of a group 1 furnace dedicated to processing a distinct type of furnace feed/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:

12.11.17.1 Procedures for the characterization and documentation of the contaminant level of the scrap prior to the performance test.

12.11.17.2 Limitations on the furnace feed/charge to scrap of the same composition as that used in the performance test. If the performance test was conducted with a mixture of scrap and clean charge, limitations on the proportion of scrap in the furnace feed/charge to no greater than the proportion used during the performance test.

12.11.17.3 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.

12.11.18 Group 2 furnace. These requirements apply to the owner or operator of a new or existing group 2 furnace. The owner or operator must:

12.11.18.1 Record a description of the materials charged to each furnace, including any nonreactive, non-HAP-containing/non-HAP-generating fluxing materials or agents.

12.11.18.2 Submit a certification of compliance with the applicable operational standard for charge materials in 12.7.15 of this section for each 6-month reporting period. Each certification must contain the information in 12.17.2.2.5 of this section.

12.11.19 Site-specific requirements for secondary aluminum processing units.

12.11.19.1 An owner or operator of a secondary aluminum processing unit at a facility must include within the OM&M plan prepared in accordance with <u>the requirements in</u> 12.11.2 of this section, the following information:

12.11.19.1.1 The identification of each emission unit in the secondary aluminum processing unit;

12.11.19.1.2 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;

12.11.19.1.3 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;

12.11.19.1.4 Information and data demonstrating compliance for each emission unit with all applicable design, equipment, work practice, or operational standards of Section 12.0 of this regulation; and

12.11.19.1.5 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 12.11.20 of this section.

12.11.19.2 The SAPU compliance procedures within the OM&M plan may not contain any of the following provisions:

12.11.19.2.1 Any averaging among emissions of differing pollutants;

12.11.19.2.2 The inclusion of any affected sources other than emission units in a secondary aluminum processing unit;

12.11.19.2.3 The inclusion of any emission unit while it is shutdown; or

12.11.19.2.4 The inclusion of any periods of startup, shutdown, or malfunction in emission calculations.

12.11.19.3 To revise the SAPU compliance provisions within the OM&M plan prior to the end of the permit term, the owner or operator must submit a request to the ~~applicable permitting authority~~ Department containing the information required in 12.11.19.1 of this section and obtain approval of the ~~applicable permitting authority~~ Department prior to implementing any revisions.

12.11.20 Secondary aluminum processing unit. Except as provided in 12.11.21 of this section, the owner or operator must calculate and record the 3-day, 24-hour rolling average emissions of PM, HCl, and D/F for each secondary aluminum processing unit on a daily basis. To calculate the 3-day, 24-hour rolling average, the owner or operator must:

12.11.20.1 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 feed/charge weight information required in 12.11.5 of this section. If the owner or operator chooses to comply on the basis of weight of aluminum produced by the emission unit, rather than weight of material charged to the emission unit, all performance test emissions results and all calculations must be conducted on the aluminum production weight basis.

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

12.11.20.3 Divide the total emissions for each SAPU for the 24-hour period by the total material charged to the SAPU, or the weight of aluminum produced by the SAPU over the 24-hour period to provide the daily emission rate for the SAPU.

12.11.20.4 Compute the 24-hour daily emission rate using equation 4:

~~Eday = [3(Ti x ERi)]) [3(Ti)] (Eq. 4)~~

$$Eday = \sum_{i=1}^{n} Ti * ERi \Big/ \sum_{i=1}^{n} Ti \qquad (4)$$

where,

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

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

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

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

12.11.20.5 Calculate and record the 3-day, 24-hour rolling average for each pollutant each day by summing the daily emission rates for each pollutant over the 3 most recent consecutive days and dividing by 3.

12.11.21 Secondary aluminum processing unit compliance by individual emission unit demonstration. As an alternative to the procedures in 12.11.20 of this section, an owner or operator may demonstrate, through performance tests, that each individual emission unit within the secondary aluminum production unit is in compliance with the applicable emission limits for the emission unit.

12.11.22 Alternative monitoring method for lime addition. The owner or operator of a lime-coated fabric filter that employs intermittent or noncontinuous lime addition may apply to the Administrator for approval of an alternative method for monitoring the lime addition schedule and rate based on monitoring the weight of lime added per ton of feed/charge for each operating cycle or time period used in the performance test in accordance with 40 CFR 63.1510(v) ~~(July 1, 2002 edition)~~.

12.11.23 Alternative monitoring methods. If an owner or operator wishes to use an alternative monitoring method to demonstrate compliance with any emission standard in Section 12.0 of this regulation, other than those alternative monitoring methods which may be authorized in 12.11.10.5 and 12.11.22 of this section, the owner or operator may submit an application to the Administrator (with a copy sent to the Department), in accordance with 40 CFR 63.1510(w) ~~(July 1, 2002 edition)~~. The owner or operator must continue to use the original monitoring requirement until approval is received from the Administrator to use another monitoring procedure, and the Department has been provided a copy of such approval by the owner or operator.

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

12.12 Performance test/compliance demonstration general requirements.

12.12.1 Site-specific test plan. Prior to conducting any performance test required in Section 12.0 of this regulation, the owner or operator must prepare and submit a site-specific test plan which satisfies all of the requirements, and must obtain approval of the plan pursuant to the procedures set forth in Sec. 63.7(c) of subpart A of this regulation.

12.12.2 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 12.16.2 of this section. The owner or operator of any existing affected source for which an initial performance test is required to demonstrate compliance must conduct this initial performance test no later than the date for compliance established in 12.2.1 of this section. The owner or operator of any new affected source for which an initial performance test is required must conduct this initial performance test within 90 days after the date for compliance established in 12.2.2 of this section. Except for the date by which the performance test must be conducted, the owner or operator must conduct each performance test in accordance with the requirements and procedures set forth in Sec. 63.7(e) of subpart A of this regulation. Owners or operators of affected sources located at facilities which are area sources are subject only to those performance testing requirements pertaining to D/ F. Owners or operators of sweat furnaces meeting the specifications in 12.6.6.1 of this section are not required to conduct a performance test.

12.12.2.1 The owner or operator must conduct each test while the affected source or emission unit is operating at the highest production level with charge materials representative of the range of materials processed by the unit and, if applicable, at the highest reactive fluxing rate.

12.12.2.2 Each performance test for a continuous process must consist of 3 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.

12.12.2.3 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.

12.12.2.4 Where multiple affected sources or emission units are exhausted through a common stack, pollutant sampling for each run must be conducted over a period of time during which all affected sources or emission units complete at least 1 entire process operating cycle or for 24 hours, whichever is shorter.

12.12.2.5 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.

12.12.3 Test methods. The owner or operator must use the following methods in Appendix A to 40 CFR Part 60 ~~(July 1, 2002 edition)~~ to determine compliance with the applicable emission limits or standards:

12.12.3.1 Method 1 for sample and velocity traverses.

12.12.3.2 Method 2 for velocity and volumetric flow rate.

12.12.3.3 Method 3 for gas analysis.

12.12.3.4 Method 4 for moisture content of the stack gas.

12.12.3.5 Method 5 for the concentration of PM.

12.12.3.6 Method 9 for visible emission observations.

12.12.3.7 Method 23 for the concentration of D/F.

12.12.3.8 Method 25A for the concentration of THC, as propane.

12.12.3.9 Method 26A 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.

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

12.12.5 Repeat tests. The owner or operator of new or existing affected sources and emission units located at secondary aluminum production facilities that are major sources must conduct a performance test every 5 years following the initial performance test.

12.12.6 Testing of representative emission units. With the prior approval of the Department, an owner or operator may utilize emission rates obtained by testing a particular type of group 1 furnace which is not controlled by any add-on control device, or by testing an in-line flux box which is not controlled by any add-on control device, to determine the emission rate for other units of the same type at the same facility. Such emission test results may only be considered to be representative of other units if all of the following criteria are satisfied:

12.12.6.1 The tested emission unit must use feed materials and charge rates which are comparable to the emission units that it represents;

12.12.6.2 The tested emission unit must use the same type of flux materials in the same proportions as the emission units it represents;

12.12.6.3 The tested emission unit must be operated utilizing the same work practices as the emission units that it represents;

12.12.6.4 The tested emission unit must be of the same design as the emission units that it represents; and

12.12.6.5 The tested emission unit must be tested under the highest load or capacity reasonably expected to occur for any of the emission units that it represents.

12.12.7 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 in 12.11 of this section 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 in 12.16.2.4 of this section in the notification of compliance status report. The owner or operator may use existing data in addition to the results of performance tests to establish operating parameter values for compliance monitoring

provided each of the following conditions are met to the satisfaction of the ~~applicable permitting authority~~ Department:

12.12.7.1 The complete emission test report or reports used as the basis of the parameter or parameters is submitted.

12.12.7.2 The same test methods and procedures as required in Section 12.0 of this regulation were used in the test.

12.12.7.3 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.

12.12.7.4 All process and control equipment operating parameters required to be monitored were monitored as required in Section 12.0 of this regulation and documented in the test report.

12.12.8 Testing of commonly-ducted units within a secondary aluminum processing unit. When group 1 furnaces or in-line fluxers are included in a single existing SAPU or new SAPU, and the emissions from more than one emission unit within that existing SAPU or new SAPU are manifolded to a single control device, compliance for all units within the SAPU is demonstrated if the total measured emissions from all controlled and uncontrolled units in the SAPU do not exceed the emission limits calculated for that SAPU based on the applicable equation in 12.6.11 of this section.

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

12.12.9.1 All testing must be designed to verify that each affected source or emission unit individually satisfies all emission requirements applicable to that affected source or emission unit;

12.12.9.2 All emissions of pollutants subject to a standard must be tested at the outlet from each individual affected source or emission unit while operating under the highest load or capacity reasonably expected to occur, and prior to the point that the emissions are manifolded together with emissions from other affected sources or emission units;

12.12.9.3 The combined emissions from all affected sources and emission units which are manifolded to a single emission control device must be tested at the outlet of the emission control device;

12.12.9.4 All tests at the outlet of the emission control device must be conducted with all affected sources and emission units whose emissions are manifolded to the control device operating simultaneously under the highest load or capacity reasonably expected to occur; and

12.12.9.5 For purposes of demonstrating compliance of a commonly-ducted unit with any emission limit for a particular type of pollutant, the emissions of that pollutant by the individual unit shall be presumed to be controlled by the same percentage as total emissions of that pollutant from all commonly-ducted units are controlled at the outlet of the emission control device.

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

12.13 Performance test/compliance demonstration requirements and procedures.

12.13.1 Aluminum scrap shredder. The owner or operator must conduct performance tests to measure PM emissions at the outlet of the control system. If visible emission 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 40 CFR Part 60 ~~(July 1, 2002 edition)~~.

12.13.2 Thermal 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 aluminum chips.

12.13.3 Scrap dryer/delacquering kiln/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.

12.13.3.1 If the scrap dryer/delacquering kiln/decoating kiln is subject to the alternative emission limits in 12.6.5 of this section, the average afterburner operating temperature in each 3-hour block period must be maintained at or above 760 deg.C (1400 deg.F) for the test.

12.13.3.2 The owner or operator of a scrap dryer/delacquering kiln/decoating kiln subject to the alternative limits in 12.6.5 of this section must submit a written certification in the notification of compliance status report containing the information required in 12.16.2.7 of this section.

12.13.4 Group 1 furnace with add-on air pollution control devices.

12.13.4.1 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).

12.13.4.2 The owner or operator of a group 1 furnace that processes only clean charge materials with emissions controlled by a lime-injected fabric filter must conduct performance tests to measure emissions of PM 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).

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

12.13.4.4 The owner or operator of a sidewell group 1 furnace that conducts reactive fluxing (except for cover flux) in the hearth, or that conducts reactive fluxing in the sidewell at times when the level of molten metal falls below the top of the passage between the sidewell and the hearth, must conduct the performance tests required in 12.13.4.1 or 12.13.4.2 of this section, to measure emissions from both the sidewell and the hearth.

12.13.5 Group 1 furnace (including melting/holding furnaces) without add-on air pollution control devices. In the site-specific monitoring plan required in 12.11.15 of this section, the owner or operator of a group 1 furnace (including melting/holding furnaces) without add-on air pollution control devices must include data and information demonstrating compliance with the applicable emission limits.

12.13.5.1 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.

12.13.5.2 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 melting/holding furnace) processes only clean charge.

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

12.13.6 Sweat furnace. Except as provided in 12.6.6.1 of this section, the owner or operator must measure emissions of D/F from each sweat furnace at the outlet of the control device.

12.13.7 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 **and salt flux as the sole feedstock**.

12.13.8 In-line fluxer.

12.13.8.1 The owner or operator of an in-line fluxer that uses reactive flux materials must conduct a performance test to measure emissions of HCl and PM or otherwise demonstrate compliance in accordance with 12.13.8.2 of this section. If the in-line fluxer is equipped with an add-on control device, the emissions must be measured at the outlet of the control device.

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

12.13.9 Rotary dross cooler. The owner or operator must conduct a performance test to measure PM emissions at the outlet of the control device.

12.13.10 Secondary aluminum processing unit. The owner or operator must conduct performance tests as described in 12.13.10.1 through 12.13.10.3 of this section. The results of the performance tests are used to establish emission rates in lb/ton of feed/charge for PM and HCl and µg TEQ/Mg of feed/charge for D/F emissions from each emission unit. These emission rates are used for compliance monitoring in the calculation of the 3-day, 24-hour rolling average emission rates using ~~the~~ equation 4 in 12.11.20 of this section. A performance test is required for:

12.13.10.1 Each group 1 furnace processing only clean charge to measure emissions of PM and either:

12.13.10.1.1 Emissions of HCl (for the emission limit) or

12.13.10.1.2 The mass flow rate of HCl at the inlet to and outlet from the control device (for the percent reduction standard).

12.13.10.2 Each group 1 furnace that processes scrap other than clean charge to measure emissions of PM and D/F and either:

12.13.10.2.1 Emissions of HCl (for the emission limit) or

12.13.10.2.2 The mass flow rate of HCl at the inlet to and outlet from the control device (for the percent reduction standard).

12.13.10.3 Each in-line fluxer to measure emissions of PM and HCl.

12.13.11 Feed/charge weight measurement. During the emission test or tests 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/charge format, must measure (or otherwise determine) and record the total weight of feed/charge to the affected source or emission unit for each of the three test runs and calculate and record the total weight. An owner or operator that chooses to demonstrate compliance on the basis of the aluminum production weight must measure the weight of aluminum produced by the emission unit or affected source instead of the feed/charge weight.

12.13.12 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 40 CFR Part 60 ~~(July 1, 2002 edition)~~. 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.

12.13.13 Afterburner. These requirements apply to the owner or operator of an affected source using an afterburner to comply with the requirements of Section 12.0 of this regulation.

12.13.13.1 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~~ in Sec. 63.8 of subpart A of this regulation.

12.13.13.2 The owner or operator must use these procedures to establish an operating parameter value or range for the afterburner operating temperature.

12.13.13.2.1 Continuously measure and record the operating temperature of each afterburner every 15 minutes during the THC and D/F performance tests;

12.13.13.2.2 Determine and record the 15-minute block average temperatures for the three test runs; and

12.13.13.2.3 Determine and record the 3-hour block average temperature measurements for the 3 test runs.

12.13.14 Inlet gas temperature. The owner or operator of a scrap dryer/delacquering kiln/decoating kiln or a group 1 furnace using a lime-injected fabric filter must use these procedures to establish an operating parameter value or range for the inlet gas temperature.

12.13.14.1 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;

12.13.14.2 Determine and record the 15-minute block average temperatures for the 3 test runs; and

12.13.14.3 Determine and record the 3-hour block average of the recorded temperature measurements for the 3 test runs.

12.13.15 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.

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

12.13.15.2 Record the identity, composition, and total weight of each addition of solid reactive flux for the 3 test runs;

12.13.15.3 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 flux using equation 5:

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

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 or liquid 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;

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

12.13.15.5 If a solid reactive flux other than magnesium chloride is used, the owner or operator must derive the appropriate proportion factor (~~F_1 or~~ F_2) subject to approval by the Department.

12.13.16 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 for each operating cycle or time period used in the performance test.

12.13.16.1 For continuous lime injection systems, ensure that lime in the feed hopper or silo is free-flowing at all times and

12.13.16.2 Record the feeder setting for the 3 test runs. If the feed rate setting varies during the runs, determine and record the average feed rate from the 3 runs.

12.13.17 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 12.16.2.6 of this section as part of the notification of compliance status report to document conformance with the specifications and requirements in 12.11.6 of this section.

12.13.18 Labeling. The owner or operator of each scrap dryer/delacquering kiln/decoating kiln, group 1 furnace, group 2 furnace, sweat furnace, and in-line fluxer must submit the information described in 12.16.2.3 of this section as part of the notification of compliance status report to document conformance with the operational standard in 12.7.2 of this section.

12.13.19 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 12.16.2.5 of this section as part of the notification of compliance status report to document conformance with the operational standard in 12.7.3 of this section.

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

12.14 Equations for determining compliance.

12.14.1 THC emission limit. Use equation 6 to determine compliance with an emission limit for THC:

$$E = (C \cancel{x} * MW \cancel{x} * Q \cancel{x} * K_1 \cancel{x} * K_2) / (M_V \cancel{x} * P \cancel{x} * 10^6) \qquad (\cancel{Eq.}\ 6)$$

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).

12.14.2 PM, HCl and D/F emission limits.

12.14.2.1 Use equation 7 to determine compliance with an emission limit for PM **or** HCl ~~**and D/F**~~:

$E = (C$ ~~x~~* Q ~~x~~* $K_1) / (P)$ (~~Eq.~~ 7)

where,

E = Emission rate of PM **or** HCl ~~**or D/F**~~, kg/Mg (lb/ton) of feed;
C = Concentration of PM **or** 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).

12.14.2.2 Use equation 7A to determine compliance with an emission limit for D/F:

E = (C * Q) / P (7A)

where,

E = Emission rate of D/F, µg/Mg (gr/ton) of feed;
C = Concentration of D/F, µg /dscm (gr/dscf);
Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr); and
P = Production rate, Mg/hr (ton/hr).

12.14.3 HCl percent reduction standard. Use equation 8 to determine compliance with an HCl percent reduction standard:

$\%R = [(Li - Lo) / (Li)]$ ~~x~~* 100 (~~Eq.~~ 8)

where,

%R = Percent reduction of the control device;
Li = Inlet loading of pollutant, kg/Mg (lb/ton); and
Lo = Outlet loading of pollutant, kg/Mg (lb/ton).

12.14.4 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).

12.14.5 Secondary aluminum processing unit. Use the procedures in 12.14.5.1, 12.14.5.2, and 12.14.5.3 or the procedure in 12.14.5.4 of this section to determine compliance with emission limits for a secondary aluminum processing unit.

12.14.5.1 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 (Ec_{PM}) is less than or equal to the emission limit for the secondary aluminum processing unit (Lc_{PM}) calculated using equation 1 in 12.6.11 of this section.

~~$Ec_{PM} = [\sum (Eti_{PM} \times Tti)] / [\sum (Tti)]$ (Eq. 9)~~

$$Ec_{PM} = \sum_{i=1}^{n} Eti_{PM} * Tti \Big/ \sum_{i=1}^{n} Tti \qquad (9)$$

where,

Ec_{PM} = The mass-weighted PM emissions for the secondary aluminum processing unit;
Eti_{PM} = Measured PM emissions for individual emission unit i;
Tti = 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.

12.14.5.2 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 (Ec_{HCl}) is less than or equal to the emission limit for the secondary aluminum processing unit (Lc_{HCl}) calculated using equation 2 in 12.6.11 of this section.

~~$Ec_{HCl} = [\sum (Eti_{HCl} \times Tti)] / [\sum (Tti)]$ (Eq. 10)~~

$$Ec_{HCl} = \sum_{i=1}^{n} Eti_{HCl} * Tti \Big/ \sum_{i=1}^{n} Tti \qquad (10)$$

where,

Ec_{HCl} = The mass-weighted HCl emissions for the secondary aluminum processing unit; ~~and~~
Eti_{HCl} = Measured HCl emissions for individual emission unit i;
Tti = 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.

12.14.5.3 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 ($Ec_{D/F}$) is less than or equal to the emission limit for the secondary aluminum processing unit ($Lc_{D/F}$) calculated using equation 3 in 12.6.11 of this section.

~~$Ec_{D/F} = [\sum (Eti_{D/F} \times Tti)] / [\sum (Tti)]$ (Eq. 11)~~

$$Ec_{D/F} = \sum_{i=1}^{n} Eti_{D/F} * Tti \Big/ \sum_{i=1}^{n} Tti \qquad (11)$$

where,

$Ec_{D/F}$ = The mass-weighted D/F emissions for the secondary aluminum processing unit; ~~and~~
$Eti_{D/F}$ = Measured D/F emissions for individual emission unit i;
Tti = 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.

12.14.5.4 As an alternative to using the equations in 12.14.5.1, 12.14.5.2, and 12.14.5.3 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 12.6.9 of this section and that each existing in-line fluxer is in compliance with the emission limits for a new in-line fluxer in 12.6.10 of this section.

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

12.15 [Reserved]

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

12.16 Notifications.

12.16.1 Initial notifications. The owner or operator must submit initial notifications to the ~~applicable permitting authority~~ Department as described in 12.16.1.1 through 12.16.1.7 of this section.

12.16.1.1 As required ~~by~~ in Sec. 63.9(b)(1) of subpart A of this regulation, 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 Section 12.0 of this regulation.

12.16.1.2 As required ~~by~~ in Sec. 63.9(b)(3) of subpart A of this regulation, 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 June 11, 2003 ~~the effective date of this subpart~~ and for which an application for approval of construction or reconstruction is not required ~~under~~ in Sec. 63.5(d) of subpart A of this regulation, must provide notification that the source is subject to Section 12.0 of this regulation.

12.16.1.3 As required ~~by~~ in Sec. 63.9(b)(4) of subpart A of this regulation, the owner or operator of a new or reconstructed major affected source or of a source that has been reconstructed such that the source becomes a major affected source, that has an initial startup after June 11, 2003 ~~the effective date of this subpart~~ and for which an application for approval of construction or reconstruction is required ~~by~~ in Sec. 63.5(d) of subpart A of this regulation must provide the following notifications:

12.16.1.3.1 Intention to construct a new major affected source, reconstruct a major source, or reconstruct a source such that the source becomes a major affected source;

12.16.1.3.2 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 June 11, 2003 ~~the effective date of this subpart,~~ or

no later than 30 days after the date construction or reconstruction commenced if construction or reconstruction commenced after June 11, 2003 ~~the effective date of this subpart~~);

12.16.1.3.3 Anticipated date of startup; and

12.16.1.3.4 Actual date of startup.

12.16.1.4 As required ~~by~~ in Sec. 63.9(b)(5) of subpart A of this regulation, after June 11, 2003 ~~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 Section 12.0 of this regulation, or reconstruct a source such that it becomes an affected source subject to Section 12.0, 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~~ in Sec. 63.5(d) of subpart A of this regulation. For major sources, the application for approval of construction or reconstruction may be used to fulfill these requirements.

12.16.1.4.1 [Reserved]

12.16.1.4.2 [Reserved]

12.16.1.5 As required ~~by~~ in Sec. 63.9(d) of subpart A of this regulation, the owner or operator must provide notification of any special compliance obligations for a new source.

12.16.1.6 As required ~~by~~ in Sec. 63.9(e) and (f) of subpart A of this regulation, 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 Department 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.

12.16.1.7 As required ~~by~~ in Sec. 63.9(g) of subpart A of this regulation, the owner or operator must provide additional notifications for sources with continuous emission monitoring systems or continuous opacity monitoring systems.

12.16.2 Notification of compliance status report. Each owner or operator of an existing affected source must submit a notification of compliance status report within 60 days after the compliance dates specified in 12.2.1 of this section. Each owner or operator of a new affected source must submit a notification of compliance status report within 90 days after conducting the initial performance test required in 12.12.2 of this section, or within 90 days after the compliance date established in 12.2.2 of this section if no initial performance test is required. 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 12.16.2.1 through 12.16.2.10 of this section and shall be submitted to the Department (with a copy sent to the Administrator). 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. 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:

12.16.2.1 All information required in Sec. 63.9(h) of subpart A of this regulation. The owner or operator must provide a complete performance test report for each affected source and emission unit for which a performance test is required. A complete performance test report includes all data, associated measurements, and calculations (including visible emission and opacity tests).

12.16.2.2 The approved site-specific test plan and performance evaluation test results for each continuous monitoring system (including a continuous emission or opacity monitoring system).

12.16.2.3 Unit labeling as described in 12.7.2 of this section, including process type or furnace classification and operating requirements.

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

12.16.2.5 Design information and analysis, with supporting documentation, demonstrating conformance with the requirements for capture/collection systems in 12.7.3 of this section.

12.16.2.6 If applicable, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in 12.11.6 of this section.

12.16.2.7 Manufacturer's 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 kiln/decoating kiln subject to alternative emission standards in 12.6.5 of this section.

12.16.2.8 Manufacturer's specification or analysis documenting the design residence time of no less than 0.8 seconds and design operating temperature of no less than 872 deg.C (1600 deg.F) for each afterburner used to control emissions from a sweat furnace that is not subject to a performance test.

12.16.2.9 The OM&M plan (including site-specific monitoring plan for each group 1 furnace with no add-on air pollution control device).

12.16.2.10 Startup, shutdown, and malfunction (SSM) plan, with revisions.

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

12.17 Reports.

12.17.1 Startup, shutdown, and malfunction plan/reports. The owner or operator must develop ~~**and implement**~~ a written plan as described in Sec. 63.6(e)(3) of subpart A of this regulation 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 Section 12.0 of this regulation. The owner or operator shall also keep records of each event as required ~~by~~ in Sec. 63.10(b) of subpart A of this

regulation 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 Sec. 63.6(e)(3) and Sec. 63.10(d)(5) of subpart A of this regulation. In addition to the information required in Sec. 63.6(e)(3) of subpart A of this regulation, the plan must include:

12.17.1.1 Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended and

12.17.1.2 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.

12.17.2 Excess emissions/summary report. **~~As required by Sec. 63.10(e)(3),~~ ~~t~~The owner or operator must submit semiannual reports according to the requirements in Sec. 63.10(e)(3) of subpart A of this regulation. Except, the owner or operator must submit the semiannual reports within 60 days after the end of each 6-month period instead of within 30 days after the calendar half as specified in Section 63.10(e)(3)(v) of subpart A of this regulation. ~~Each report must contain the information specified in Sec. 63.10(e).~~** When no deviations of parameters have occurred, the owner or operator must submit a report stating that no excess emissions occurred during the reporting period.

12.17.2.1 A report must be submitted if any of these conditions occur during a 6-month reporting period:

12.17.2.1.1 The corrective action specified in the OM&M plan for a bag leak detection system alarm was not initiated within 1 hour.

12.17.2.1.2 The corrective action specified in the OM&M plan for a continuous opacity monitoring deviation was not initiated within 1 hour.

12.17.2.1.3 The corrective action specified in the OM&M plan for visible emissions from an aluminum scrap shredder was not initiated within 1 hour.

12.17.2.1.4 An excursion of a compliant process or operating parameter value or range (e.g., lime injection rate or screw feeder setting, total reactive chlorine flux injection rate, afterburner operating temperature, fabric filter inlet temperature, definition of acceptable scrap, or other approved operating parameter).

12.17.2.1.5 An action taken during a startup, shutdown, or malfunction was not consistent with the procedures in the startup, shutdown and malfunction (SSM) plan as described in Sec. 63.6(e)(3) of subpart A of this regulation.

12.17.2.1.6 An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of Section 12.0 of this regulation.

12.17.2.1.7 A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit.

12.17.2.2 Each report must include each of these certifications, as applicable:

12.17.2.2.1 For each thermal chip dryer: "Only unpainted aluminum chips were used as feedstock in any thermal chip dryer during this reporting period."

12.17.2.2.2 For each dross-only furnace: "Only dross **and salt flux were** ~~**was**~~ used as the charge material in any dross-only furnace during this reporting period."

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

12.17.2.2.4 For each group 1 melting/holding furnace 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 12.6.9.2 of this section processed only clean charge during this reporting period."

12.17.2.2.5 For each group 2 furnace: "Only clean charge materials 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, non-HAP-containing/non-HAP-generating fluxing gases or agents, except for cover fluxes, during this reporting period."

12.17.2.2.6 For each in-line fluxer using no reactive flux: "Only nonreactive, non-HAP-containing /non-HAP-generating flux gases, agents, or materials were used at any time during this reporting period."

12.17.2.3 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.

12.17.3 Annual compliance certifications. For the purpose of annual certifications of compliance required ~~by~~ in Regulation 30, the owner or operator must certify continuing compliance based upon, but not limited to, the following conditions:

12.17.3.1 Any period of excess emissions, as defined in 12.17.2.1 of this section, that occurred during the year were reported as required ~~by~~ in Section 12.0 of this regulation and

12.17.3.2 All monitoring, recordkeeping, and reporting requirements were met during the year.

12.17.4 Submittals. The owner or operator shall submit all reports, notifications, or certifications required ~~by~~ in Section 12.0 of this regulation to the Department, with a copy sent to the Director of the Air Protection Division at the EPA Region 3 office.

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

12.18 Records.

12.18.1 As required ~~by~~ in Sec. 63.10(b) of subpart A of this regulation, the owner or operator shall maintain files of all information (including all reports and notifications) required ~~by~~ in Sec. 63.10 of subpart A and Section 12.0 of this regulation.

12.18.1.1 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.

12.18.1.2 The owner or operator may retain records on microfilm, computer disks, magnetic tape, or microfiche.

12.18.1.3 The owner or operator may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.

12.18.2 In addition to the general records required ~~by~~ in Sec. 63.10(b) of subpart A of this regulation, 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:

12.18.2.1 For each affected source and emission unit with emissions controlled by a fabric filter or a lime-injected fabric filter:

12.18.2.1.1 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 or actions taken.

12.18.2.1.2 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.

12.18.2.1.3 If an aluminum scrap shredder is subject to visible emission observation requirements, records of all Method 9 observations, including records of any visible emissions during a 30-minute daily test, 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.

12.18.2.2 For each affected source with emissions controlled by an afterburner:

12.18.2.2.1 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.

12.18.2.2.2 Records of annual afterburner inspections.

12.18.2.3 For each scrap dryer/delacquering kiln/decoating kiln and group 1 furnace, 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 plus 14 deg.C (plus 25 deg.F), with a brief explanation of the cause of the excursion and the corrective action taken.

12.18.2.4 For each affected source and emission unit with emissions controlled by a lime-injected fabric filter:

12.18.2.4.1 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. If flow monitors, pressure drop sensors or load cells are used to verify that lime is present in the hopper and flowing, records of all monitor or sensor output including any event where blockage was found, with a brief explanation of the cause of the blockage and the corrective action taken.

12.18.2.4.2 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.

12.18.2.4.3 If lime addition rate for a noncontinuous lime injection system is monitored pursuant to the approved alternative monitoring requirements in 12.11.22 of this section, 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/charge).

12.18.2.5 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 flux injection rate and calculations (including records of the identity, composition, and weight of each addition of gaseous, liquid or solid reactive flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken.

12.18.2.6 For each continuous monitoring system, records required ~~by~~ <u>in</u> Sec. 63.10(c) <u>of subpart A of this regulation</u>.

12.18.2.7 For each affected source and emission unit subject to an emission standard in kg/Mg (lb/ton) of feed/charge, records of feed/charge (or throughput) weights for each operating cycle or time period used in the performance test.

12.18.2.8 Approved site-specific monitoring plan for a group 1 furnace without add-on air pollution control devices with records documenting conformance with the plan.

12.18.2.9 Records of all charge materials for each thermal chip dryer, dross-only furnace, and group 1 melting/holding furnaces without air pollution control devices processing only clean charge.

12.18.2.10 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.

12.18.2.11 For each in-line fluxer for which the owner or operator has certified that no reactive flux was used:

12.18.2.11.1 Operating logs which establish that no source of reactive flux was present at the in-line fluxer;

12.18.2.11.2 Labels required in 12.7.2 of this section which establish that no reactive flux may be used at the in-line fluxer; or

12.18.2.11.3 Operating logs which document each flux gas, agent, or material used during each operating cycle.

12.18.2.12 Records of all charge materials and fluxing materials or agents for a group 2 furnace.

12.18.2.13 Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements.

12.18.2.14 Records of annual inspections of emission capture/collection and closed vent systems.

12.18.2.15 Records for any approved alternative monitoring or test procedure.

12.18.2.16 Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:

12.18.2.16.1 Startup, shutdown, and malfunction plan;

12.18.2.16.2 OM&M plan; and

12.18.2.16.3 Site-specific secondary aluminum processing unit emission plan (if applicable).

12.18.2.17 For each secondary aluminum processing unit, records of total charge weight, or if the owner or operator chooses to comply on the basis of aluminum production, total aluminum produced for each 24-hour period and calculations of 3-day, 24-hour rolling average emissions.

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

12.19 Applicability of general provisions.

Owners or operators of affected sources subject to the provisions of Section 12.0 of this regulation must also comply with the requirements ~~of~~ in subpart A of this regulation, according to the applicability of subpart A of this regulation to such sources as identified in Table 1 of Section 12.0.

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

12.20 and 12.21 [Reserved]

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

Table 1 of Section 12.0 of Regulation 1138 - Subpart A ~~(General Provisions)~~ of this Regulation Applicability to Section 12.0

~~Citation~~ General Provisions Reference	~~Requirement~~	Applies to Section 12.0	Comment
~~Sec.~~ 63.1(a)(1)-(4)	~~General Applicability.~~	Yes	
~~Sec.~~ 63.1(a)(5)		No	~~[Reserved].~~
~~Sec.~~ 63.1(a)(6)~~-(8)~~		Yes	
~~Sec.~~ 63.1(a)(7)-(9)		No	~~[Reserved].~~
~~Sec.~~ 63.1(a)(10)-(14)		Yes	
~~Sec.~~ 63.1(b)(1)	~~Initial Applicability Determination~~	Yes	EPA retains approval authority.
63.1(b)(2)		No	
63.1(b)(3)		Yes	
~~Sec.~~ 63.1(c)(1)	~~Applicability After Standard Established.~~	Yes	
~~Sec.~~ 63.1(c)(2)		Yes	**12.1.5 exempts area sources subject to this section from the obligation to obtain a Title V operating permit.** ~~**States have option to defer area sources from title V permit program.**~~
~~Sec.~~ 63.1(c)(3)-(4)		No	~~[Reserved].~~
~~Sec.~~ 63.1(c)~~(4)~~-(5)		Yes	
~~Sec.~~ 63.1(d)		No	~~[Reserved].~~
~~Sec.~~ 63.1(e)	~~Applicability of Permit Program.~~	Yes	
~~Sec.~~ 63.2	~~Definitions~~	Yes	Additional definitions in 12.4.
~~Sec.~~ 63.3	~~Units and Abbreviations~~	Yes	
~~Sec.~~ 63.4(a)(1)-(2 ~~3~~)	~~Prohibited Activities.~~	Yes	
~~Sec.~~ 63.4(a)(3)-(5 ~~4~~)		No	~~[Reserved].~~
~~Sec~~. 63.4(a)(5)		~~Yes~~	
~~Sec.~~ 63.4(b)-(c)	~~Circumvention/ Severability.~~	Yes	
~~Sec. 63.5(a)~~	~~Construction and Reconstruction Applicability.~~	Yes	

Table 1 of Section 12.0 - Continued

~~Citation~~ General Provisions Reference	~~Requirement~~	Applies to Section 12.0	Comment
~~Sec.~~ 63.5(b)(1)	~~Existing, New, Reconstructed Sources – Requirements.~~	Yes	
~~Sec.~~ 63.5(b)(2)		No	~~[Reserved].~~
~~Sec.~~ 63.5(b)(3)-(4 ~~6~~)		Yes	
63.5(b)(5)		No	
63.5(b)(6)		Yes	
~~Sec.~~ 63.5(c)		No	~~[Reserved].~~
~~Sec.~~ 63.5(d~~)~~-(d)(1)(ii)(F)	~~Application for Approval of Construction/ Reconstruction.~~	Yes	
63.5(d)(1)(ii)(G)		No	
63.5(d)(1)(ii)(H)		Yes	
63.5(d)(1)(ii)(I)		No	
63.5(d)(1)(ii)(J)-(f)		Yes	
~~Sec. 63.5(e)~~	~~Approval of Construction/ Reconstruction.~~	~~Yes~~	
~~Sec. 63.5(f)~~	~~Approval of Construction/ Reconstruction Based on State Review.~~	~~Yes~~	
~~Sec.~~ 63.6(a)	~~Compliance with Standards and Maintenance – Applicability.~~	Yes	
~~Sec.~~ 63.6(b)(1)-(5)	~~New and Reconstructed Sources – Dates.~~	Yes	
~~Sec.~~ 63.6(b)(6)		No	~~[Reserved].~~
~~Sec.~~ 63.6(b)(7)		Yes	
~~Sec.~~ 63.6(c)(1)	~~Existing Sources Dates~~	Yes	12.2 specifies dates.
~~Sec.~~ 63.6(c)(2)		Yes	

Table 1 of Section 12.0 - Continued

~~Citation~~ General Provisions Reference	~~Requirement~~	Applies to Section 12.0	Comment
~~Sec.~~ 63.6(c)(3)-(4)		No	~~[Reserved].~~
~~Sec.~~ 63.6(c)(5)		Yes	
~~Sec.~~ 63.6(d)		No	~~[Reserved].~~
~~Sec.~~ 63.6(e)(1)~~-(2)~~	~~Operation & Maintenance Requirements.~~	Yes	12.11 requires plan.
63.6(e)(2)		No	
~~Sec.~~ 63.6(e)(3)-(3)(i)	~~Startup, Shutdown, and Malfunction Plan.~~	Yes	
63.6(e)(3)(ii)		No	
63.6(e)(3)(ii)-(ix)		Yes	
~~Sec.~~ 63.6(f)	~~Compliance with Emission Standards.~~	Yes	
~~Sec.~~ 63.6(g)	~~Alternative Standard.~~	No	
~~Sec.~~ 63.6(h)-(h)(2)(i)	~~Compliance with Opacity/VE Standards.~~	Yes	
63.6(h)(2)(ii)		No	
63.6(h)(2)(iii)		Yes	
63.6(h)(3)		No	
63.6(h)(4)-(h)(5)(iii)		Yes	
63.6(h)(5)(iv)		No	
63.6(h)(5)(v)-(h)(9)		Yes	
~~Sec.~~ 63.6(i)(1)-(14)	~~Extension of Compliance.~~	Yes	
~~Sec.~~ 63.6(i)(15)		No	~~[Reserved].~~
~~Sec.~~ 63.6(i)(16)		Yes	
~~Sec.~~ 63.6(j)	~~Exemption from Compliance.~~	Yes	
~~Sec.~~ 63.7(a)-(a)(2)	~~Performance Test Requirements Applicability and Dates.~~	Yes	Except 12.12 establishes dates for initial performance tests.

Table 1 of Section 12.0 - Continued

~~Citation~~ General Provisions Reference	~~Requirement~~	Applies to Section 12.0	Comment
63.7(a)(2)(i)-(a)(2)(viii)		No	
63.7(a)(2)(ix)-(a)(3)		Yes	
~~Sec.~~ 63.7(b)	~~Notification.~~	Yes	
~~Sec.~~ 63.7(c)	~~Quality Assurance/Test Plan.~~	Yes	
~~Sec.~~ 63.7(d)	~~Testing Facilities.~~	Yes	
~~Sec.~~ 63.7(e)	~~Conduct of Tests.~~	Yes	
~~Sec.~~ 63.7(f)	~~Alternative Test Method.~~	Yes	
~~Sec.~~ 63.7(g)-(g)(1)	~~Data Analysis.~~	Yes	
63.7(g)(2)		No	
63.7(g)(3)		Yes	
~~Sec.~~ 63.7(h)	~~Waiver of Tests.~~	Yes	
~~Sec.~~ 63.8(a)(1)	~~Monitoring Requirements – Applicability.~~	Yes	
~~Sec.~~ 63.8(a)(2)		Yes	
~~Sec.~~ 63.8(a)(3)		No	~~[Reserved].~~
~~Sec.~~ 63.8(a)(4)		Yes	
~~Sec.~~ 63.8(b)	~~Conduct of Monitoring.~~	Yes	
~~Sec.~~ 63.8(c)(1)-(3)	~~CMS Operation and Maintenance.~~	Yes	
~~Sec.~~ 63.8(c)(4)-(8)		Yes	
~~Sec.~~ 63.8(d)	~~Quality Control.~~	Yes	
~~Sec.~~ 63.8(e)	~~CMS Performance Evaluation.~~	Yes	
~~Sec.~~ 63.8(f)(1)-(5)	~~Alternative Monitoring Method.~~	No	12.11.23 includes provisions for monitoring alternatives.
~~Sec.~~ 63.8(f)(6)	~~Alternative to RATA Test.~~	Yes	

Table 1 of Section 12.0 - Continued

~~Citation~~ General Provisions Reference	~~Requirement~~	Applies to Section 12.0	Comment
~~Sec.~~ 63.8(g)(1)	~~Data Reduction.~~	Yes	
~~Sec.~~ 63.8(g)(2)		No	12.13 requires five 6-minute averages for an aluminum scrap shredder.
~~Sec.~~ 63.8(g)(3)-(5)		Yes	
~~Sec.~~ 63.9(a)	~~Notification Requirements - Applicability.~~	Yes	
~~Sec.~~ 63.9(b)-(b)(2)	~~Initial Notifications.~~	Yes	
63.9(b)(3)		No	
63.9(b)(4)-(b)(4)(i)		Yes	
63.9(b)(4)(ii-iv)		No	
63.9(b)(4)(v)-(b)(5)		Yes	
~~Sec.~~ 63.9(c)	~~Request for Compliance Extension.~~	Yes	
~~Sec.~~ 63.9(d)	~~New Source Notification for Special Compliance Requirements.~~	Yes	
~~Sec.~~ 63.9(e)	~~Notification of Performance Test.~~	Yes	
~~Sec.~~ 63.9(f)	~~Notification of VE/Opacity Test.~~	Yes	
~~Sec.~~ 63.9(g)	~~Additional CMS Notifications.~~	Yes	
~~Sec.~~ 63.9(h)(1)-(3)	~~Notification of Compliance Status.~~	Yes	Except 12.16 establishes dates for notification of compliance status reports.
~~Sec.~~ 63.9(h)(4)		No	~~[Reserved].~~
~~Sec.~~ 63.9(h)(5)-(6)		Yes	
~~Sec.~~ 63.9(i)	~~Adjustment of Deadlines.~~	Yes	
~~Sec.~~ 63.9(j)	~~Change in Previous Information.~~	Yes	

Table 1 of Section 12.0 - Continued

~~Citation~~ General Provisions Reference	~~Requirement~~	Applies to Section 12.0	Comment
~~Sec.~~ 63.10(a)	~~Recordkeeping/ Reporting -- Applicability.~~	Yes	
~~Sec.~~ 63.10(b)	~~General Requirements.~~	Yes	12.18 includes additional requirements.
~~Sec.~~ 63.10(c)(1)	~~Additional CMS Recordkeeping.~~	Yes	
~~Sec.~~ 63.10(c)(2)-(4)		No	~~[Reserved].~~
~~Sec.~~ 63.10(c)(5)		Yes	
~~Sec.~~ 63.10(c)(6)		Yes	
~~Sec.~~ 63.10(c)(7)-(8)		Yes	
~~Sec.~~ 63.10(c)(9)		No	~~[Reserved].~~
~~Sec.~~ 63.10(c) (10)-(13)		Yes	
~~Sec.~~ 63.10(c) (14)		Yes	
~~Sec.~~ 63.10(c) (15)		Yes	
~~Sec.~~ 63.10(d)(1)	~~General Reporting Requirements.~~	Yes	
~~Sec.~~ 63.10(d)(2)	~~Performance Test Results.~~	Yes	
~~Sec.~~ 63.10(d)(3)	~~Opacity or VE Observations.~~	Yes	
~~Sec.~~ 63.10(d)(4)-(5)	~~Progress Reports/ Startup, Shutdown, and Malfunction Reports.~~	Yes	
~~Sec.~~ 63.10(e)(1)-(2)	~~Additional CMS Reports~~	Yes	
~~Sec.~~ 63.10(e)(3)-(e)(3)(i)(B)	~~Excess Emissions/CMS Performance Reports.~~	Yes	

Table 1 of Section 12.0 - Continued

~~Citation~~ General Provisions Reference	~~Requirement~~	Applies to Section 12.0	Comment
63.10(e)(3)(i)(C)		No	
63.10(e)(3)(i)(D)-(e)(3)(viii)		Yes	**Reporting deadline given in 12.17**
~~Sec.~~ 63.10(e)(4)	~~COMS Data Reports.~~	Yes	
~~Sec.~~ 63.10(f)	~~Recordkeeping/ Reporting Waiver.~~	Yes	
~~Sec.~~ 63.11(a)-(b)	~~Control Device Requirements.~~	No	Flares not applicable.
~~Sec.~~ 63.12(a)-(c)	~~State Authority and Delegations.~~	Yes	EPA retains authority for applicability determinations.
~~Sec.~~ 63.13	~~Addresses~~	Yes	
~~Sec.~~ 63.14	~~Incorporation by Reference.~~	Yes	Chapters 3 and 5 of ACGIH Industrial Ventilation Manual for capture/collection systems; and Interim Procedures for Estimating Risk Associated with Exposure to Mixtures of Chlorinated Dibenzofurans (CDDs and CDFs) and 1989 Update (incorporated by reference in 12.3).
~~Sec.~~ 63.15	~~Availability of Information/ Confidentiality.~~	Yes	

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

Table 12.6-1 of Section 12.0 of Regulation 1138
Emission Standards for New and Existing Affected Sources

Affected source/Emission unit	Pollutant	Limit	Units
All new and existing affected sources and emission units that are controlled with a PM add-on control device and that choose to monitor with a continuous opacity monitor (COM) and all new and existing aluminum scrap shredders that choose to monitor with a COM or to monitor visible emissions	Opacity	10	percent
New and existing aluminum scrap shredder	PM	0.01	gr/dscf
New and existing thermal chip dryer	THC D/F[a]	0.80 2.50	1b/ton of feed µg TEQ/Mg of feed
New and existing scrap/dryer delacquering kiln/decoating kiln Or Alternative limits if afterburner has a design residence time of at least 1 second and operates at a temperature of at least 760 deg.C (1400 ~~o~~ deg.F)	PM HCl THC D/F[a] PM HCl THC D/F[a]	0.08 0.80 0.06 0.25 0.30 1.50 0.20 5.0	1b/ton of feed 1b/ton of feed 1b/ton of feed µg TEQ/Mg of feed 1b/ton of feed 1b/ton of feed 1b/ton of feed µg TEQ/Mg of feed
New and existing sweat furnace	D/F[a]	0.80	ng TEQ/dscm@ 11% O_2 [b]
New and existing dross-only furnace	PM	0.30	1b/ton of feed
New and existing in-line fluxer[c]	HCl PM	0.04 0.01	1b/ton of feed 1b/ton of feed
New and existing in-line fluxer with no reactive fluxing		No Limit	Work practice: no reactive fluxing
New and existing rotary dross cooler	PM	0.04	gr/dscf
New and existing clean furnace (Group 2)		No Limit	Work practice: clean charge only and no reactive fluxing

Table 12.6-1 of Section 12.0 – Continued

Affected source/Emission unit	Pollutant	Limit	Units
New and existing group 1 melting/holding furnace (processing only clean charge)[c]	PM HCl	0.80 0.40 or 10	1b/ton of feed 1b/ton of feed percent of the HCl upstream of an add-on control device
New and existing group 1 furnace[c]	PM HCl D/F[a]	0.40 0.40 or 10 15.0	1b/ton of feed 1b/ton of feed percent of the HCl upstream of an add-on control device µg TEQ/Mg of feed
New and existing group 1 furnace[c] with clean charge only	PM HCl D/F[a]	0.40 0.40 or 10 No Limit	1b/ton of feed 1b/ton of feed percent of the HCl upstream of an add-on control device Work practice: clean charge only

Table 12.6-1 of Section 12.0 – Continued

Affected source/Emission Unit	Pollutant	Limit
New and existing secondary aluminum processing unit[a,d] (consists of all group 1 furnaces and existing in-line flux boxes at the facility, or all simultaneously constructed new group 1 furnaces and new in-line fluxers	PM [e]	$Lc_{PM} = \frac{\sum_{i=1}^{n}(Lti_{PM} \times Tti)}{\sum_{i=1}^{n}(Tti)}$
	HCl [f]	$Lc_{HCl} = \frac{\sum_{i=1}^{n}(Lti_{HCl} \times Tti)}{\sum_{i=1}^{n}(Tti)}$
	D/F [g]	$Lc_{D/F} = \frac{\sum_{i=1}^{n}(Lti_{D/F} \times Tti)}{\sum_{i=1}^{n}(Tti)}$

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

[b] Sweat furnaces equipped with afterburners meeting the specifications in 12.6.6.1 of this section are not required to conduct a performance test.

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

[d] Equation definitions:

Lti_{PM} = the PM emission limit for individual emission unit i in the secondary aluminum processing unit [kg/Mg (lb/ton) of feed];

Tti = the feed rate for individual emission unit i in the secondary aluminum processing unit [tons of feed per operating cycle];

Lc_{PM} = the overall PM emission limit for the secondary aluminum processing unit [kg/Mg (lb/ton) of feed];

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

Lc_{HCl} = the overall HC1 emission limit for the secondary aluminum processing unit [kg/Mg (lb/ton) of feed];

$Lti_{D/F}$ = the D/F emission limit for individual emission unit i in the secondary aluminum processing unit [µg TEQ/Mg (gr TEQ/ton) of feed];

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

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

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

[f] In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the HC1 limit.

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

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

Table 12.7-1 of Section 12.0 of Regulation 1138
Summary Of Operating Requirements For New And Existing Affected Sources And Emission Units

Affected source/Emission unit	Monitor type/ Operation/ Process	Operating requirements
All affected sources and emission units with an add-on air pollution control device	Emission capture and collection system	Design and install in accordance with "Industrial Ventilation: A Handbook of Recommended Practice"; operate in accordance with OM&M plan.[b]
All affected sources and emission units subject to production-based (lb/ton of feed) emission limits [a]	Charge/feed weight or Production weight	Operate a device that records the weight of each charge; operate in accordance with OM&M plan.[b]
Group 1 furnace, group 2 furnace, in-line fluxer, sweat furnace, and scrap dryer/ delacquering kiln/decoating kiln	Labeling	Identification, operating parameter ranges and operating requirements posted at affected sources and emission units; control device temperature and residence time requirements posted at scrap dryer/delacquering kiln/decoating kiln or sweat furnace.
Aluminum scrap shredder with fabric filter	Bag leak detector or	Initiate corrective action within 1-hr of alarm and complete in accordance with OM&M plan [b]; operate such that alarm does not sound more than 5% of operating time in 6-month period.
	Continuous opacity monitor (COM) or	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with OM&M plan.[b]
	Visible emissions ~~VE~~	Initiate corrective action within 1-hr of any observed visible emissions ~~VE~~ and complete in accordance with the OM&M plan.[b]
Thermal 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 OM&M plan.[b]
	Feed material	Operate using only unpainted aluminum chips.

Table 12.7-1 of Section 12.0 - Continued

Affected source/Emission unit	Monitor type/ Operation/ Process	Operating requirements
Scrap dryer/delacquering kiln/ decoating kiln with afterburner and lime-injected fabric filter	Afterburner operating temperature	Maintain average temperature for each 3-hr period at or above average operating temperature during the performance test.
	Afterburner operation	Operate in accordance with OM&M plan.[b]
	Bag leak detector or	Initiate corrective action within 1-hr of alarm and complete in accordance with the OM&M plan; [b] operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with the OM&M plan.[b]
	Fabric filter inlet temperature	Maintain average fabric filter inlet temperature for each 3-hr period at or below average temperature during the performance test plus14 ~~o~~ deg.C (plus 25 ~~o~~ deg.F).
	Lime injection rate	Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection systems; maintain feeder setting at level established during the performance test for continuous injection systems.
Sweat furnace with afterburner	Afterburner operating temperature	If a performance test was conducted, maintain average temperature for each 3-hr period at or above average operating temperature during the performance test; if a performance test was not conducted and afterburner meets specifications in 12.6.6.1 of this section, maintain average temperature for each 3-hr period at or above 872 deg.C (1600 ~~o~~ deg.F).
	Afterburner operation	Operate in accordance with OM&M plan.[b]

Table 12.7-1 of Section 12.0 - Continued

Affected source/Emission unit	Monitor type/ Operation/ Process	Operating requirements
Dross-only furnace with fabric filter	Bag leak detector or	Initiate corrective action within 1-hr of alarm and complete in accordance with the OM&M plan; [b] operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with the OM&M plan.[b]
	Feed/charge material	Operate using only dross and salt flux as the feed/charge material.
Rotary dross cooler with fabric filter	Bag leak detector or	Initiate corrective action within 1-hr of alarm and complete in accordance with the OM&M plan; [b] operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with the OM&M plan.[b]
In-line fluxer with lime-injected fabric filter (including those that are part of a secondary aluminum processing unit)	Bag leak detector or	Initiate corrective action within 1-hr of alarm and complete in accordance with the OM&M plan; [b] operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with the OM&M plan.[b]
	Lime injection rate	Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection systems; maintain feeder setting at level established during the performance test for continuous injection systems.
	Reactive flux injection rate	Maintain reactive flux injection rate at or below rate used during the performance test for each operating cycle or time period used in the performance test.

Table 12.7-1 of Section 12.0 - Continued

Affected source/Emission unit	Monitor type/ Operation/ Process	Operating requirements
In-line fluxer (using no reactive flux materials	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 or	Initiate corrective action within 1-hr of alarm ~~operate such that alarm does not sound more than 5% of operating time in 6-month period~~ and complete ~~corrective action~~ in accordance with the OM&M plan; [b] operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete ~~corrective action~~ in accordance with the OM&M plan.[b]
	Fabric filter inlet temperature	Maintain average fabric filter inlet temperature for each 3-hr period at or below average temperature during the performance test plus 14 ~~o~~ deg.C (plus 25 ~~o~~ deg.F).
	Reactive flux injection rate	Maintain reactive flux injection rate (**kg/Mg or** lb/hr) at or below rate used during the performance test for each operating cycle or time period used in the performance test.
	Lime injection rate	Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection systems; maintain feeder setting at level established ~~at~~ during the performance test for continuous injection systems.
	Maintain molten aluminum level	Operate sidewell furnaces such that the level of molten metal is above the top of the passage between sidewell and hearth during reactive flux injection, unless the hearth is also controlled.
	Fluxing in sidewell furnace hearth	Add reactive flux only to the sidewell of the furnace unless the hearth is also controlled.

Table 12.7-1 of Section 12.0 - Continued

Affected source/Emission unit	Monitor type/ Operation/ Process	Operating requirements
Group 1 furnace without add-on controls (including those that are part of a secondary aluminum processing unit)	Reactive flux injection rate	Maintain reactive flux injection rate (**kg/Mg or** lb/hr) at or below rate used during the performance test for each operating cycle or time period used in the performance test.
	Site-specific monitoring plan [c]	Operate furnace within the range of charge materials, contaminant levels, and parameter values established in the site-specific monitoring plan.
	Feed material (melting/holding furnace)	Use only clean charge.
Clean (group 2) furnace	Charge and flux materials	Use only clean charge. Use no reactive flux.

[a] Thermal chip dryers, scrap dryers/delacquering kilns/decoating kilns, dross-only furnaces, in-line fluxers and group 1 furnaces including melting/holding furnaces.

[b] OM&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 OM&M plan that documents work practice and pollution prevention measures, including procedures for scrap inspection, by which compliance is achieved with emission limits and process or feed parameter-based operating requirements. This plan and the testing to demonstrate adequacy of the monitoring plan must be developed in coordination with and approved by the Department.

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)

Table 12.11-1 of Section 12.0 of Regulation 1138
Summary Of Monitoring Requirements For New And Existing Affected Sources And Emission Units

Affected source/Emission unit	Monitor type/ Operation/ Process	Monitoring requirements
All affected sources and emission units with an add-on air pollution control device	Emission capture and collection system	Annual inspection of all emission capture, collection, and transport systems to ensure that systems continue to operate in accordance with ACGIH standards.
All affected sources and emission units subject to production-based (lb/ton of feed/charge) emission limits[a]	Feed/charge weight	Record weight of each feed/charge, weight measurement device or other procedure accuracy of ±1% [b]; calibrate according to manufacturer's specifications, or at least once every 6 months.
Group 1 furnace, group 2 furnace, in-line fluxer, sweat furnace, and scrap dryer/ delacquering kiln/decoating kiln	Labeling	Check monthly to confirm that labels are intact and legible.
Aluminum scrap shredder with fabric filter	Bag leak detector or	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance" [c]; record voltage output from bag leak detector.
	Continuous opacity monitor (COM) or	Design and install in accordance with PS–1; collect data in accordance with subpart A of this regulation; determine and record 6-minute block averages.
	Visible emissions ~~VE~~	Conduct and record results of 30-minute daily test in accordance with Method 9.
Thermal chip dryer with afterburner	Afterburner operating temperature	Continuous measurement device to meet specifications in 12.11.7.1 of this section; record ~~average~~ temperature ~~for each~~ in 15-minute block averages; determine and record 3-hr block averages.
	Afterburner operation	Annual inspection of afterburner internal parts; complete repairs in accordance with the OM&M plan.
	Feed/charge material	Record identity of each feed/charge; certify feed/charge materials every 6 months.

Table 12.11-1 of Section 12.0 - Continued

Affected source/Emission unit	Monitor type/ Operation/ Process	Monitoring requirements
Scrap dryer/delacquering kiln/ decoating kiln with afterburner and lime injected fabric filter	Afterburner operating temperature	Continuous measurement device to meet specifications in 11.7.1 of this section; record temperature in 15-minute block averages; determine and record 3-hr block averages.
	Afterburner operation	Annual inspection of afterburner internal parts; complete repairs in accordance with the OM&M plan.
	Bag leak detector or	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance" [c]; record voltage output from bag leak detector.
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of this regulation; determine and record 6-minute block averages.
	Lime injection rate	For continuous injection systems, record feeder setting daily and inspect each feed hopper or silo every 8 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 ~~record feeder setting daily~~.
	Fabric filter inlet temperature	Continuous measurement device to meet specifications in 12.11.8.2 of this section; record temperatures in 15-minute block averages; determine and record 3-hr block averages.
Sweat furnace with afterburner	Afterburner operating temperature	Continuous measurement device to meet specifications in 12.11.7.1 of this section; record temperature in 15-minute block averages; determine and record 3-hr block averages.
	Afterburner operation	Annual inspection of afterburner internal parts; complete repairs in accordance with the OM&M plan.

Table 12.11-1 of Section 12.0 - Continued

Affected source/Emission unit	Monitor type/ Operation/ Process	Monitoring requirements
Dross-only furnace with fabric filter	Bag leak detector or	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance" [c]; record voltage output from bag leak detector.
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of this regulation; determine and record 6-minute block averages.
	Feed/charge material	Record identity of each feed/charge; certify feed/charge materials every 6 months.
Rotary dross cooler with fabric filter	Bag leak detector or	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance" [c]; record voltage output from bag leak detector.
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of this regulation; determine and record 6-minute block averages.
In-line fluxer using no reactive flux	Flux materials	Record flux materials; certify every 6 months for no reactive flux.

Table 12.11-1 of Section 12.0 - Continued

Affected source/Emission unit	Monitor type/ Operation/ Process	Monitoring requirements
In-line fluxer with lime-injected fabric filter	Bag leak detector or	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance" [c]; record voltage output from bag leak detector.
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of this regulation; determine and record 6-minute block averages.
	Reactive flux injection rate	Weight measurement device accuracy of ±1% [b]; calibrate according to manufacturer's specifications or at least once every 6 months; record time, weight and type of reactive flux added or injected for each 15-minute block period while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test; or alternative flux injection rate determination procedure in 12.11.10.5 of this section.
	Lime injection rate	For continuous injection systems, record feeder setting daily and inspect each feed hopper or silo every 8 hrs to verify that lime is free-flowing; record results of each inspection. If blockage occurs, inspect every 4 hrs for 3 days; return to 8-hr inspections if corrective action results in no further blockage during 3-day period.

Table 12.11-1 of Section 12.0 - Continued

Affected source/Emission unit	Monitor type/ Operation/ Process	Monitoring requirements
Group 1 furnace with lime-injected fabric filter	Bag leak detector or	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance" [c]; record voltage output from bag leak detector.
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of this regulation; determine and record 6-minute block averages.
	Lime injection rate	For continuous injection systems, record feeder setting daily and inspect each feed hopper or silo every 8 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.
	Reactive flux injection rate	Weight measurement device accuracy of ±1% [b]; calibrate every 3 months; record time, weight and type of reactive flux added or injected for each 15-minute block period while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test; or alternative flux injection rate determination procedure in 12.11.10.5 of this section.
	Fabric filter inlet temperature	Continuous measurement device to meet specifications in 12.11.8.2 of this section; record temperatures in 15-minute block averages; determine and record 3-hr block averages.
	Maintain molten aluminum level in sidewell furnace	Maintain aluminum level operating log; certify every 6 months.

Table 12.11-1 of Section 12.0 - Continued

Affected source/Emission unit	Monitor type/ Operation/ Process	Monitoring requirements
Group 1 furnace without add-on controls	Fluxing in sidewell furnace hearth	Maintain flux addition operating log; certify every 6 months.
	Reactive flux injection rate	Weight measurement device accuracy of ±1% [b]; calibrate according to manufacturer's specifications or at least once every 6 months; record time, weight and type of reactive flux added or injected for each 15-minute block period while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test; or alternative flux injection rate determination procedure in 12.11.10.5 of this section.
	OM&M plan (approved by Department)	Demonstration of site-specific monitoring procedures to provide data and show correlation of emissions across the range of charge and flux materials and furnace operating parameters.
	Feed material (melting/holding furnace)	Record type of permissible feed/charge material; certify feed/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] Thermal chip dryers, scrap dryers/delacquering kilns/decoating kilns, dross-only furnaces, in-line fluxers and group 1 furnaces or melting/holding furnaces.

[b] Department may approve measurement devices of alternative accuracy, for example in cases where flux rates are very low and costs of meters of specified accuracy are prohibitive; or where feed/charge weighing devices of specified accuracy are not practicable due to equipment layout or charging practices.

[c] Non-triboelectric bag leak detectors must be installed and operated in accordance with manufacturers' specifications.

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

6 DE Reg. 1724 (6/1/03); x DE Reg. XXX (xx/1/07)