DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DIVISION OF AIR AND WASTE MANAGEMENT

Statutory Authority: 7 Delaware Code, Chapter 60 (7 **Del.C.,** Ch. 60)
7 **DE Admin. Code** 1138

PROPOSED

SAN # 2006-22

1138 Emission Standards for Hazardous Air Pollutants for Source Categories

1. Title Of The Regulations:

Amendment to Regulation No. **1138 Emission Standards for Hazardous Air Pollutants for Source Categories**

2. Brief Synopsis Of The Subject, Substance And Issues:

Delaware adopted by reference the federal Maximum Achievable Control Technology (MACT) standards applicable to halogenated solvent degreasers (40 CFR Part 63 Subpart T) and aluminum sweat furnaces (40 CFR Part 63 Subpart RRR) into Regulation No. 38 on November 1, 2001 and June 1, 2003, respectively. When Delaware adopted these standards all sources subject to them were required to get a Title V operating permit. In December 2005, the EPA revised the Title V permitting requirements to permanently exempt the smaller area sources from having to obtain a Title V permit.

The purpose of this amendment to Subparts T and RRR of Regulation No. 38 is to be consistent with federal requirements by permanently exempting small area sources from Title V permitting requirements. These sources must still obtain air permits under Regulation 1102.

With this rulemaking, the Department will also amend Subparts T and RRR to be consistent with the Delaware Administrative Code format. The Department will also change from the adoption by reference format and provide the complete regulatory text. This latter change will eliminate the need for the public and regulated community to interpret the adopted federal standards and the changes made when the Department originally adopted these standards into Regulation No. 38.

3. Possible Terms Of The Agency Action:

None

4. Statutory Basis Or Legal Authority To Act:

7 **Delaware Code**, Chapter 60

5. Other Regulations That May Be Affected By The Proposal:

None

6. Notice Of Public Comment:

Statements and testimony may be presented either orally or in writing at a public hearing to be held on Thursday, June 21, 2007 beginning at 6:00PM in the DNREC auditorium at the Richardson and Robbins Building, 89 Kings Highway, Dover DE. Interested parties may submit comments in writing to: Jim Snead, DNREC Air Quality Management Section, 715 Grantham Lane, New Castle, DE 19720.

7. Prepared By:

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April 11, 2007

PROLOGUE

- The Department proposes to amend Regulation 1138 (formerly regulation 38) by replacing Subparts T and RRR with the following. New Sections 8.0 and 12.0 do not change any of the other sections of Regulation 1138.
- ~~Strikeout~~ and underlines include newly added federal changes and miscellaneous changes to correct technical errors, to improve clarity, and to provide consistency between Sections 8.0 and 12.0 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

~~11/11/01~~ ?/11/07

Section 8.0 ~~Subpart T~~ Emission Standards for Halogenated Solvent Cleaning

8.1 Applicability and designation of source.

8.1.1 The provisions of Section 8.0 of this regulation apply to each individual batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride (CAS No. 75- 09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning or drying agent. The concentration of these solvents may be determined using ~~EPA test method~~ Method 18 in Appendix A of 40 CFR Part 60, material safety data sheets, or engineering calculations. Wipe cleaning activities, such as using a rag containing halogenated solvent or a spray cleaner containing halogenated solvent are not covered under the provisions of Section 8.0.

8.1.2 Owners or operators of affected sources subject to the provisions of Section 8.0 of this regulation must also comply with the requirements of 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 8.0.

8.1.3 ~~Except as provided in paragraph (g) of this section, each~~ Each solvent cleaning machine subject to Section 8.0 of this regulation that commences construction or reconstruction after November 29, 1993 shall achieve compliance with the provisions of Section 8.0 immediately upon start-up or by November 11, 2001, whichever is later.

8.1.4 ~~Except as provided in paragraph (g) of this section, each~~ Each solvent cleaning machine subject to Section 8.0 of this regulation that commenced construction or reconstruction on or before November 29, 1993 shall achieve compliance with the provisions of Section 8.0 no later than November 11, 2001.

8.1.5 [Reserved] ~~In delegating implementation and enforcement authority to a State under section 112(d) of the Act, the authority contained in paragraph (f) of this section shall be retained by the Administrator and not transferred to a State.~~

8.1.6 [Reserved] ~~The authority conferred in Sec. 63.463(d)(9) and Sec. 63.469 will not be delegated to any State.~~

8.1.7 [Reserved] ~~Each continuous web cleaning machine subject to this subpart shall achieve compliance with the provisions of this subpart no later than November 11, 2001.~~

8.1.8 The owner or operator of an area source subject to Section 8.0 of this regulation is 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 8.0. Notwithstanding the previous sentence, the owner or operator shall continue to comply with the provisions of Section 8.0 applicable to area sources.

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8.2 Definitions.

Unless defined below, all terms in Section 8.0 of this regulation have the meanings given them in the Act or in subpart A of this regulation.

"Administrator" means the Administrator of the United States Environmental Protection Agency.

"Air blanket" means the layer of air inside the solvent cleaning machine freeboard located above

the solvent/air interface. The centerline of the air blanket is equidistant between the sides of the machine.

"Air knife system" means a device that directs forced air at high pressure, high volume, or a combination of high pressure and high volume, through a small opening directly at the surface of a continuous web part. The purpose of this system is to remove the solvent film from the surfaces of the continuous web part.

"Automated parts handling system" means a mechanical device that carries all parts and parts baskets at a controlled speed from the initial loading of soiled or wet parts through the removal of the cleaned or dried parts. Automated parts handling systems include, but are not limited to, hoists and conveyors.

"Batch cleaning machine" means a solvent cleaning machine in which individual parts or a set of parts move through the entire cleaning cycle before new parts are introduced into the solvent cleaning machine. An open-top vapor cleaning machine is a type of batch cleaning machine. A solvent cleaning machine, such as a ferris wheel or a cross-rod degreaser, that clean multiple batch loads simultaneously and are manually loaded are batch cleaning machines.

"Carbon adsorber" means a bed of activated carbon into which an air-solvent gas-vapor stream is routed and which adsorbs the solvent on the carbon.

"Clean liquid solvent" means fresh unused solvent, recycled solvent, or used solvent that has been cleaned of soils (e.g., skimmed of oils or sludge and strained of metal chips).

"Cleaning capacity" means, for a cleaning machine without a solvent/air interface, the maximum volume of parts that can be cleaned at one time. In most cases, the cleaning capacity is equal to the volume (length times width times height) of the cleaning chamber.

"Cold cleaning machine" means any device or piece of equipment that contains or uses liquid solvent, into which parts are placed to remove soils from the surfaces of the parts or to dry the parts. Cleaning machines that contain and use heated, nonboiling solvent to clean the parts are classified as cold cleaning machines.

"Combined squeegee and air-knife system" means a system consisting of a combination of a squeegee system and an air-knife system within a single enclosure.

"Consumption" means the amount of halogenated hazardous air pollutant solvent added to the solvent cleaning machine.

"Continuous web cleaning machine" means a solvent cleaning machine in which parts such as film, coils, wire, and metal strips are cleaned at speeds typically in excess of 11 feet per minute. Parts are generally uncoiled, cleaned such that the same part is simultaneously entering and exiting the solvent application area of the solvent cleaning machine, and then recoiled or cut. For the purposes of Section 8.0 of this regulation, all continuous web cleaning machines are considered to be a subset of in-line solvent cleaning machines.

"Cover" means a lid, top, or portal cover that shields the solvent cleaning machine openings from air disturbances when in place and is designed to be easily opened and closed without disturbing the vapor zone. Air disturbances include, but are not limited to, lip exhausts, ventilation fans, and general room drafts. Types of covers include, but are not limited to, sliding, biparting, and roll top covers.

"Cross-rod solvent cleaning machine" means a batch solvent cleaning machine in which parts baskets are suspended from "cross-rods" as they are moved through the machine. In a cross-rod cleaning machine, parts are loaded semi-continuously, and enter and exit the machine from a single portal.

"Downtime mode" means the time period when a solvent cleaning machine is not cleaning parts and the sump heating coils, if present, are turned off.

"Dwell" means the technique of holding parts within the freeboard area but above the vapor zone of the solvent cleaning machine. Dwell occurs after cleaning to allow solvent to drain from the parts or parts baskets back into the solvent cleaning machine.

"Dwell time" means the required minimum length of time that a part must dwell, as determined in 8.6.4 of this section.

"Emissions" means halogenated hazardous air pollutant solvent consumed (i.e., halogenated hazardous air pollutant solvent added to the machine) minus the liquid halogenated hazardous air pollutant solvent removed from the machine and the halogenated hazardous air pollutant solvent removed from the machine in the solid waste.

"Existing" means any solvent cleaning machine the construction or reconstruction of which was commenced on or before November 29, 1993. An existing solvent cleaning machine moved within a contiguous facility or to another facility under the same ownership remains an existing machine.

"Freeboard area" means; for a batch cleaning machine, the area within the solvent cleaning

machine that extends from the solvent/air interface to the top of the solvent cleaning machine; for an in-line cleaning machine, it is the area within the solvent cleaning machine that extends from the solvent/air interface to the bottom of the entrance or exit opening, whichever is lower.

"Freeboard height" means; for a batch cleaning machine, the distance from the solvent/air interface, as measured during the idling mode, to the top of the cleaning machine; for an in-line cleaning machine, it is the distance from the solvent/air interface to the bottom of the entrance or exit opening, whichever is lower, as measured during the idling mode.

"Freeboard ratio" means the ratio of the solvent cleaning machine freeboard height to the smaller interior dimension (length, width, or diameter) of the solvent cleaning machine.

"Freeboard refrigeration device" (also called a chiller) means a set of secondary coils mounted in the freeboard area that carries a refrigerant or other chilled substance to provide a chilled air blanket above the solvent vapor. A primary condenser capable of meeting the requirements of 8.4.5.2.1 of this section is defined as both a freeboard refrigeration device and a primary condenser for the purposes of these standards.

"Halogenated hazardous air pollutant solvent" or "halogenated HAP solvent" means methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5), and chloroform (CAS No. 67-66-3).

"Hoist" means a mechanical device that carries the parts basket and the parts to be cleaned from the loading area into the solvent cleaning machine and to the unloading area at a controlled speed. A hoist may be operated by controls or may be programmed to cycle parts through the cleaning cycle automatically.

"Idling mode" means the time period when a solvent cleaning machine is not actively cleaning parts and the sump heating coils, if present, are turned on.

"Idling-mode cover" means any cover or solvent cleaning machine design that allows the cover to shield the cleaning machine openings during the idling mode. A cover that meets this definition can also be used as a working-mode cover if that definition is also met.

"Immersion cold cleaning machine" means a cold cleaning machine in which the parts are immersed in the solvent when being cleaned. A remote reservoir cold cleaning machine that is also an immersion cold cleaning machine is considered an immersion cold cleaning machine for purposes of Section 8.0 of this regulation.

"In-line cleaning machine" or "continuous cleaning machine" means a solvent cleaning machine that uses an automated parts handling system, typically a conveyor, to automatically provide a continuous supply of parts to be cleaned. These ~~units~~ solvent cleaning machines are fully enclosed except for the conveyor inlet and exit portals. In-line cleaning machines can be either cold or vapor cleaning machines.

"Leak-proof coupling" means a threaded or other type of coupling that prevents solvents from leaking while filling or draining solvent to and from the solvent cleaning machine.

"Lip exhaust" means a device installed at the top of the opening of a solvent cleaning machine that draws in air and solvent vapor from the freeboard area and ducts the air and vapor away from the solvent cleaning area.

"Monthly reporting period" means any calendar month in which the owner or operator of a solvent cleaning machine is required to calculate and report the solvent emissions from each solvent cleaning machine.

"New" means any solvent cleaning machine the construction or reconstruction of which is commenced after November 29, 1993.

"Open-top vapor cleaning machine" means a batch solvent cleaning machine that has its upper surface open to the air and boils solvent to create solvent vapor used to clean or dry parts.

"Part" means any object that is cleaned or dried in a solvent cleaning machine. Parts include, but are not limited to, discrete parts, assemblies, sets of parts, and parts cleaned or dried in a continuous web cleaning machine (i.e., continuous sheets of metal or film).

"Primary condenser" means a series of circumferential cooling coils on a vapor cleaning machine through which a chilled substance is circulated or recirculated to provide continuous condensation of rising solvent vapors and, thereby, create a concentrated solvent vapor zone.

"Reduced room draft" means decreasing the flow or movement of air across the top of the freeboard area of the solvent cleaning machine to meet the specifications of 8.4.5.2.2 of this section. Methods of achieving a reduced room draft include, but are not limited to, redirecting fans or air vents to not blow across the

cleaning machine, moving the cleaning machine to a corner where there is less room draft, and constructing a partial or complete enclosure around the cleaning machine.

"Remote reservoir cold cleaning machine" means any device in which liquid solvent is pumped to a sink-like work area that drains solvent back into an enclosed container while parts are being cleaned, allowing no solvent to pool in the work area.

"Remote reservoir continuous web cleaning machine" means a continuous web cleaning machine in which there is no exposed solvent sump. In these ~~units~~ solvent cleaning machines, the solvent is pumped from an enclosed chamber and is typically applied to the continuous web part through a nozzle or series of nozzles. The solvent then drains from the part and is collected and recycled through the machine, allowing no solvent to pool in the work or cleaning area.

"Soils" mean contaminants that are removed from the parts being cleaned. Soils include, but are not limited to, greases, oils, waxes, metal chips, carbon deposits, fluxes, and tars.

"Solvent/air interface" means, for a vapor cleaning machine, the location of contact between the concentrated solvent vapor layer and the air. This location of contact is defined as the mid-line height of the primary condenser coils. For a cold cleaning machine, it is the location of contact between the liquid solvent and the air.

"Solvent/air interface area" means; for a vapor cleaning machine, the surface area of the solvent vapor zone that is exposed to the air; for an in-line cleaning machine, it is the total surface area of all the sumps; for a cold cleaning machine, it is the surface area of the liquid solvent that is exposed to the air.

"Solvent cleaning machine" means any device or piece of equipment that uses halogenated HAP solvent liquid or vapor to remove soils from the surfaces of materials. Types of solvent cleaning machines include, but are not limited to, batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machines. Buckets, pails, and beakers with capacities of one liter (30 ounces) or less are not considered solvent cleaning machines.

"Solvent vapor zone" means; for a vapor cleaning machine, the area that extends from the liquid solvent surface to the level that solvent vapor is condensed. This condensation level is defined as the midline height of the primary condenser coils.

"Squeegee system" means a system that uses a series of pliable surfaces to remove the solvent film from the surfaces of the continuous web part. These pliable surfaces, called squeegees, are typically made of rubber or plastic media, and need to be periodically replaced to ensure continued proper function.

"Sump" means the part of a solvent cleaning machine where the liquid solvent is located.

"Sump heater coils" means the heating system on a cleaning machine that uses steam, electricity, or hot water to heat or boil the liquid solvent.

"Superheated part technology" means a system that is part of the continuous web process that heats the continuous web part either directly or indirectly to a temperature above the boiling point of the cleaning solvent. This could include a process step, such as a tooling die that heats the part as it is processed, as long as the part remains superheated through the cleaning machine.

"Superheated vapor system" means a system that heats the solvent vapor, either passively or actively, to a temperature above the solvent's boiling point. Parts are held in the superheated vapor before exiting the machine to evaporate the liquid solvent on them. Hot vapor recycle is an example of a superheated vapor system.

"Vapor cleaning machine" means a batch or in-line solvent cleaning machine that boils liquid solvent generating solvent vapor that is used as a part of the cleaning or drying cycle.

"Water layer" means a layer of water that floats above the denser solvent and provides control of solvent emissions. In many cases, the solvent used in batch cold cleaning machines is sold containing the appropriate amount of water to create a water cover.

"Working mode" means the time period when the solvent cleaning machine is actively cleaning or drying parts.

"Working-mode cover" means any cover or solvent cleaning machine design that allows the cover to shield the cleaning machine openings from outside air disturbances while parts are being cleaned in the cleaning machine. A cover that is used during the working mode is opened only during parts entry and removal. A cover that meets this definition can also be used as an idling-mode cover if that definition is also met.

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8.3 Batch cold cleaning machine standards.

8.3.1 Each owner or operator of an immersion batch cold solvent cleaning machine shall comply

with the requirements specified in 8.3.1.1 or 8.3.1.2 of this section.

8.3.1.1 Employ a tightly fitting cover that shall be closed at all times except during parts entry and removal, and a water layer at a minimum thickness of 2.5 centimeters (1.0 inch) on the surface of the solvent within the cleaning machine or

8.3.1.2 Employ a tightly fitting cover that shall be closed at all times except during parts entry and removal and a freeboard ratio of 0.75 or greater.

8.3.2 Each owner or operator of a remote-reservoir batch cold solvent cleaning machine shall employ a tightly fitting cover over the sink-like work area that shall be closed at all times except during the cleaning of parts.

8.3.3 Each owner or operator of a batch cold solvent cleaning machine complying with 8.3.1 or 8.3.2 of this section shall comply with the work and operational practice requirements specified in 8.3.3.1 through 8.3.3.11 of this section as applicable.

8.3.3.1 All waste solvents shall be collected and stored in closed containers. The closed container may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container.

8.3.3.2 If a flexible hose or flushing device is used, flushing shall be performed only within the freeboard area of the solvent cleaning machine. The solvent spray shall be a solid fluid stream, not an atomized or shower spray, at a pressure that does not exceed 10 pounds per square inch gauge.

8.3.3.3 The owner or operator shall drain solvent cleaned parts for 15 seconds or until dripping has stopped, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while draining. During the draining, tipping or rotating, the parts shall be positioned so the solvent drains directly into the solvent cleaning machine.

8.3.3.4 The owner or operator shall ensure that the solvent level does not exceed the fill line.

8.3.3.5 Spills during solvent transfer or use of the solvent cleaning machine shall be wiped up immediately. The wipe rags or other sorbent material shall be stored in closed containers meeting the requirements of 8.3.3.1 of this section.

8.3.3.6 When a pump-agitated solvent bath is used, the owner or operator shall ensure that the agitator is operated to produce a rolling motion of the solvent with no observable splashing against tank walls or parts being cleaned. Air-agitated solvent baths shall not be used.

8.3.3.7 The owner or operator shall ensure that, when the cover is open, the cold cleaning machine is not exposed to drafts greater than 40 meters per minute (132 feet per minute), as measured between 1 and 2 meters (3.3 and 6.6 feet) upwind and at the same elevation as the tank lip. In addition, work area fans shall be located and positioned so that they do not blow across the opening of the solvent cleaning machine.

8.3.3.8 Except as provided in 8.3.3.9 of this section, sponges, fabric, wood, and paper products shall not be cleaned.

8.3.3.9 The prohibition in 8.3.3.8 of this section does not apply to the cleaning of porous materials that are part of polychlorinated biphenyl (PCB) laden transformers if those transformers are handled throughout the cleaning process and disposed of in compliance with an approved PCB disposal permit issued in accordance with the Toxic Substances Control Act.

8.3.3.10 Each operator of a solvent cleaning machine shall complete and pass the applicable sections of the test of solvent cleaning procedures in Appendix A of Section 8.0 of this regulation if requested during an inspection by the Department.

8.3.3.11 The owner or operator shall provide a permanent, legible, conspicuous label summarizing the operating requirements in 8.3.3 of this section.

8.3.4 Each owner or operator of a batch cold cleaning machine shall submit an initial notification report as described in 8.9.1 and 8.9.2 of this section and a compliance report as described in 8.9.3 of this section.

8.3.5 Each owner or operator subject to the requirements of 8.3.3.1 through 8.3.3.11 of this section may request to use measures other than those described in these paragraphs. The owner or operator must demonstrate to the Department that the alternative measures will result in equivalent or better emissions control compared to the measures described in 8.3.3.1 through 8.3.3.11. For example, storing solvent and solvent-laden materials in an enclosed area that is ventilated to a solvent recovery or destruction device may be considered an acceptable alternative.

8.4 Batch vapor and in-line cleaning machine standards.

8.4.1 Except as provided in 8.5 of this section for all cleaning machines, each owner or operator of a solvent cleaning machine subject to the provisions of Section 8.0 of this regulation shall ensure that each existing or new batch vapor or in-line solvent cleaning machine subject to the provisions of Section 8.0 conforms to the design requirements specified in 8.4.1.1 through 8.4.1.7 of this section. The owner or operator of a continuous web cleaning machine shall comply with the requirements of 8.4.7 or 8.4.8 of this section, as appropriate, in lieu of complying with 8.4.1 of this section.

8.4.1.1 Each cleaning machine shall be designed or operated to meet the control equipment or technique requirements in 8.4.1.1.1 or 8.4.1.1.2 of this section.

8.4.1.1.1 An idling and downtime mode cover, as described in 8.4.4.1.1 of this section, that may be readily opened or closed, that completely covers the cleaning machine openings when in place, and is free of cracks, holes, and other defects.

8.4.1.1.2 A reduced room draft as described in 8.4.5.2.2 of this section.

8.4.1.2 Each cleaning machine shall have a freeboard ratio of 0.75 or greater.

8.4.1.3 Each cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts.

8.4.1.4 Each vapor cleaning machine shall be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils. This requirement does not apply to a vapor cleaning machine that uses steam to heat the solvent.

8.4.1.5 Each vapor cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.

8.4.1.6 Each vapor cleaning machine shall have a primary condenser.

8.4.1.7 Each cleaning machine that uses a lip exhaust shall be designed and operated to route all collected solvent vapors through a properly operated and maintained carbon adsorber that meets the requirements of 8.4.5.2.7 of this section.

8.4.2 Except as provided in 8.5 of this section, each owner or operator of an existing or new batch vapor cleaning machine shall comply with either 8.4.2.1 or 8.4.2.2 of this section.

8.4.2.1 Each owner or operator of a batch vapor cleaning machine with a solvent/air interface area of 1.21 square meters (13 square feet) or less shall comply with the requirements specified in either 8.4.2.1.1 or 8.4.2.1.2 of this section.

8.4.2.1.1 Employ one of the control combinations listed in Table 8.4-1 of Section 8.0 of this regulation. Alternatively, equivalent methods of control can be submitted to and approved by the Administrator, using the procedure in 8.10 of this section.

Table 8.4-1 -- Control Combinations for Batch Vapor Solvent Cleaning Machines With a Solvent/Air Interface Area of 1.21 Square Meters (13 Square Feet) or Less

Option	Control combinations
1	Working-mode cover, freeboard ratio of 1.0, superheated vapor.
2	Freeboard refrigeration device, superheated vapor.
3	Working-mode cover, freeboard refrigeration device.
4	Reduced room draft, freeboard ratio of 1.0, superheated vapor.
5	Freeboard refrigeration device, reduced room draft.
6	Freeboard refrigeration device, freeboard ratio of 1.0.
7	Freeboard refrigeration device, dwell.
8	Reduced room draft, dwell, freeboard ratio of 1.0.
9	Freeboard refrigeration device, carbon adsorber.
10	Freeboard ratio of 1.0, superheated vapor, carbon adsorber.

NOTE: Unlike most of the control techniques available for complying with Section 8.0 of this regulation, carbon adsorbers are not considered to be a pollution prevention measure. Use of such units may impose additional cost and burden for a number of reasons. First, carbon adsorption units are generally more expensive than other controls listed in the options. Second, these units may present cross-media impacts such as effluent discharges if not properly operated and maintained, and spent carbon beds have to be disposed of as hazardous waste. When making decisions about what controls to install on halogenated solvent cleaning machines to meet the requirements of Section 8.0, all of these factors should be weighed and pollution prevention measures are encouraged wherever possible.

8.4.2.1.2 Demonstrate that their solvent cleaning machine can achieve and maintain an idling emission limit of 0.22 kilograms per hour per square meter (0.045 pounds per hour per square foot) of solvent/air interface area as determined using the procedures in 8.6.1 of this section and Method 307 in Appendix A of 40 CFR Part 63.

8.4.2.2 Each owner or operator of a batch vapor cleaning machine with a solvent/air interface area greater than 1.21 square meters (13 square feet) shall comply with the requirements specified in either 8.4.2.2.1 or 8.4.2.2.2 of this section.

8.4.2.2.1 Employ one of the control combinations listed in Table 8.4-2 of Section 8.0 of this regulation. Alternatively, equivalent methods of control can be submitted to and approved by the Administrator, using the procedure in 8.10 of this section.

Table 8.4-2 --Control Combinations for Batch Vapor Solvent Cleaning Machines With a Solvent/Air Interface Area Greater than 1.21 Square Meters (13 Square Feet)

Option	Control combinations
1	Freeboard refrigeration device, freeboard ratio of 1.0, superheated vapor.
2	Dwell, freeboard refrigeration device, reduced room draft.
3	Working-mode cover, freeboard refrigeration device, superheated vapor.
4	Freeboard ratio of 1.0, reduced room draft, superheated vapor.
5	Freeboard refrigeration device, reduced room draft, superheated vapor.
6	Freeboard refrigeration device, reduced room draft, freeboard ratio of 1.0.
7	Freeboard refrigeration device, superheated vapor, carbon adsorber.

NOTE: Unlike most of the control techniques available for complying with Section 8.0 of this regulation, carbon adsorbers are not considered to be a pollution prevention measure. Use of such units may impose additional cost and burden for a number of reasons. First, carbon adsorption units are generally more expensive than other controls listed in the options. Second, these units may present cross-media impacts such as effluent discharges if not properly operated and maintained, and spent carbon beds have to be disposed of as hazardous waste. When making decisions about what controls to install on halogenated solvent cleaning machines to meet the requirements of Section 8.0, all of these factors should be weighed and pollution prevention measures are encouraged wherever possible.

8.4.2.2.2 Demonstrate that their solvent cleaning machine can achieve and maintain an idling emission limit of 0.22 kilograms per hour per square meter (0.045 pounds per hour per square foot) of solvent/air interface area as determined using the procedures in 8.6.1 of this section and Method 307 in Appendix A of 40 CFR Part 63.

8.4.3 Except as provided in 8.5 of this section for all cleaning machines, each owner or operator of an in-line cleaning machine shall comply with 8.4.3.1 or 8.4.3.2 of this section as appropriate. The owner or operator of a continuous web cleaning machine shall comply with the requirements of 8.4.7 or 8.4.8 of this section, as appropriate, in lieu of complying with 8.4.3 of this section.

8.4.3.1 Each owner or operator of an existing in-line cleaning machine shall comply with the requirements specified in either 8.4.3.1.1 or 8.4.3.1.2 of this section.

8.4.3.1.1 Employ one of the control combinations listed in Table 8.4-3 of Section 8.0 of this regulation. Alternatively, equivalent methods of control can be submitted to and approved by the

Administrator, using the procedure in 8.10 of this section.

Table 8.4-3 -- Control Combinations for Existing In-Line Solvent Cleaning Machines

Option	Control combinations
1	Superheated vapor, freeboard ratio of 1.0.
2	Freeboard refrigeration device, freeboard ratio of 1.0.
3	Dwell, freeboard refrigeration device.
4	Dwell, carbon adsorber.

NOTE: Unlike most of the control techniques available for complying with Section 8.0 of this regulation, carbon adsorbers are not considered to be a pollution prevention measure. Use of such units may impose additional cost and burden for a number of reasons. First, carbon adsorption units are generally more expensive than other controls listed in the options. Second, these units may present cross-media impacts such as effluent discharges if not properly operated and maintained, and spent carbon beds have to be disposed of as hazardous waste. When making decisions about what controls to install on halogenated solvent cleaning machines to meet the requirements of Section 8.0, all of these factors should be weighed and pollution prevention measures are encouraged wherever possible.

8.4.3.1.2 Demonstrate that their solvent cleaning machine can achieve and maintain an idling emission limit of 0.10 kilograms per hour per square meter (0.021 pounds per hour per square foot) of solvent/air interface area as determined using the procedures in 8.6.1 of this section and Method 307 in Appendix A of 40 CFR Part 63.

8.4.3.2 Each owner or operator of a new in-line cleaning machine shall comply with the requirements specified in either 8.4.3.2.1 or 8.4.3.2.2 of this section.

8.4.3.2.1 Employ one of the control combinations listed in Table 8.4-4 of Section 8.0 of this regulation. Alternatively, equivalent methods of control can be submitted to and approved by the Administrator, using the procedure in 8.10 of this section.

Table 8.4-4 -- Control Combinations for New In-Line Solvent Cleaning Machines

Option	Control combinations
1	Superheated vapor, freeboard refrigeration device.
2	Freeboard refrigeration device, carbon adsorber.
3	Superheated vapor, carbon adsorber.

NOTE: Unlike most of the control techniques available for complying with Section 8.0 of this regulation, carbon adsorbers are not considered to be a pollution prevention measure. Use of such units may impose additional cost and burden for a number of reasons. First, carbon adsorption units are generally more expensive than other controls listed in the options. Second, these units may present cross-media impacts such as effluent discharges if not properly operated and maintained, and spent carbon beds have to be disposed of as hazardous waste. When making decisions about what controls to install on halogenated solvent cleaning machines to meet the requirements of Section 8.0, all of these factors should be weighed and pollution prevention measures are encouraged wherever possible.

8.4.3.2.2 Demonstrate that their solvent cleaning machine can achieve and maintain an idling emission limit of 0.10 kilograms per hour per square meter (0.021 pounds per hour per square foot) of solvent/air interface area as determined using the procedures in 8.6.1 of this section and Method 307 in Appendix A of 40 CFR Part 63.

8.4.4 Except as provided in 8.5 of this section for all cleaning machines, each owner or operator of an existing or new batch vapor or in-line solvent cleaning machine shall meet all of the following required work and operational practices specified in 8.4.4.1 through 8.4.4.15 of this section as applicable. The owner or operator of a continuous web cleaning machine shall comply with the requirements of 8.4.7 or 8.4.8 of this section, as appropriate, in lieu of complying with 8.4.4 of this section.

8.4.4.1 Control air disturbances across the cleaning machine opening or openings by incorporating the control equipment or techniques in 8.4.4.1.1 or 8.4.4.1.2 of this section.

8.4.4.1.1 Cover or covers to each solvent cleaning machine shall be in place during the idling mode, and during the downtime mode unless either the solvent has been removed from the machine or maintenance or monitoring is being performed that requires the cover or covers to not be in place.

8.4.4.1.2 A reduced room draft as described in 8.4.5.2.2 of this section.

8.4.4.2 The parts baskets or the parts being cleaned in an open-top batch vapor cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meters per minute (3 feet per minute) or less.

8.4.4.3 Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air (i.e., a baffled or enclosed area of the solvent cleaning machine). The solvent spray shall be a solid fluid stream, not an atomized or shower spray.

8.4.4.4 Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes shall be tipped or rotated before being removed from any solvent cleaning machine unless an equally effective approach has been approved by the Administrator.

8.4.4.5 Parts baskets or parts shall not be removed from any solvent cleaning machine until dripping has stopped.

8.4.4.6 During startup of each vapor cleaning machine, the primary condenser shall be turned on before the sump heater.

8.4.4.7 During shutdown of each vapor cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.

8.4.4.8 When solvent is added to or drained from any solvent cleaning machine, the solvent shall be transferred using threaded or other leak-proof couplings, and the discharge end of the pipe shall be located beneath the liquid solvent surface.

8.4.4.9 Each solvent cleaning machine and associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the Administrator's satisfaction to achieve the same or better results as those recommended by the manufacturer.

8.4.4.10 Each operator of a solvent cleaning machine shall complete and pass the applicable sections of the test of solvent cleaning procedures in Appendix A of Section 8.0 of this regulation if requested during an inspection by the Department.

8.4.4.11 Waste solvent, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.

8.4.4.12 Sponges, fabric, wood, and paper products shall not be cleaned.

8.4.4.13 Spills during solvent transfer or use of the solvent cleaning machine shall be wiped up immediately. The wipe rags or other sorbent material shall be stored in closed containers meeting the requirements of 8.4.4.11 of this section.

8.4.4.14 Work area fans shall be located and positioned so that they do not blow across the opening of the solvent cleaning machine.

8.4.4.15 The owner or operator shall provide a permanent, legible, conspicuous label summarizing the operating requirements in 8.4.4 of this section.

8.4.5 Each owner or operator of a solvent cleaning machine complying with 8.4.2, 8.4.3, 8.4.7, or 8.4.8 of this section shall comply with the requirements specified in 8.4.5.1 through 8.4.5.4 of this section.

8.4.5.1 Conduct monitoring of each control device used to comply with 8.4 of this regulation as provided in 8.7 of this section.

8.4.5.2 Determine during each monitoring period whether each control device used to comply with these standards meets the requirements specified in 8.4.5.2.1 through 8.4.5.2.11 of this section.

8.4.5.2.1 If a freeboard refrigeration device is used to comply with these standards, the owner or operator shall ensure that the chilled air blanket temperature (in deg. F), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point.

8.4.5.2.2 If a reduced room draft is used to comply with these standards, the owner or operator shall comply with the requirements specified in 8.4.5.2.2.1 and 8.4.5.2.2.2 of this section.

8.4.5.2.2.1 Ensure that the flow or movement of air across the top of

the freeboard area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 feet per minute) at any time as measured using the procedures in 8.7.4 of this section.

8.4.5.2.2.2 Establish and maintain the operating conditions under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute) or less as described in 8.7.4 of this section.

8.4.5.2.3 If a working-mode cover is used to comply with these standards, the owner or operator shall comply with the requirements specified in 8.4.5.2.3.1 and 8.4.5.2.3.2 of this section.

8.4.5.2.3.1 Ensure that the cover opens only for part entrance and removal and completely covers the cleaning machine openings when closed.

8.4.5.2.3.2 Ensure that the working-mode cover is maintained free of cracks, holes, and other defects.

8.4.5.2.4 If an idling-mode cover is used to comply with these standards, the owner or operator shall comply with the requirements specified in 8.4.5.2.4.1 and 8.4.5.2.4.2 of this section.

8.4.5.2.4.1 Ensure that the cover is in place whenever parts are not in the solvent cleaning machine and completely covers the cleaning machine openings when in place.

8.4.5.2.4.2 Ensure that the idling-mode cover is maintained free of cracks, holes, and other defects.

8.4.5.2.5 If a dwell is used to comply with these standards, the owner or operator shall comply with the requirements specified in 8.4.5.2.5.1 and 8.4.5.2.5.2 of this section.

8.4.5.2.5.1 Determine the appropriate dwell time for each type of part or parts basket, or determine the ~~maximum~~ minimum dwell time using the most complex part type or parts basket, as described in 8.6.4 of this section.

8.4.5.2.5.2 Ensure that, after cleaning, each part is held in the solvent cleaning machine freeboard area above the vapor zone for the dwell time determined for that particular part or parts basket, or for the ~~maximum~~ minimum dwell time determined using the most complex part type or parts basket.

8.4.5.2.6 If a superheated vapor system is used to comply with these standards, the owner or operator shall comply with the requirements specified in 8.4.5.2.6.1 through 8.4.5.2.6.3 of this section.

8.4.5.2.6.1 Ensure that the temperature of the solvent vapor at the center of the superheated vapor zone is at least 10 deg. F above the solvent's boiling point.

8.4.5.2.6.2 Ensure that the manufacturer's specifications for determining the minimum proper dwell time within the superheated vapor system is followed.

8.4.5.2.6.3 Ensure that parts remain within the superheated vapor for, at least, the minimum proper dwell time.

8.4.5.2.7 If a carbon adsorber in conjunction with a lip exhaust or other exhaust internal to the cleaning machine is used to comply with these standards, the owner or operator shall comply with the following requirements:

8.4.5.2.7.1 Ensure that the concentration of halogenated HAP solvents in the exhaust from this device does not exceed 25 parts per million of halogenated HAP solvents as measured using the procedure in 8.7.5 of this section. If the halogenated HAP solvent concentration in the carbon adsorber exhaust exceeds 25 parts per million, the owner or operator shall adjust the desorption schedule or replace the disposable canister, if not a regenerative system, so that the exhaust concentration of halogenated HAP solvent is brought below 25 parts per million.

8.4.5.2.7.2 Ensure that the carbon adsorber bed is not bypassed during desorption.

8.4.5.2.7.3 Ensure that the lip exhaust is located above the solvent cleaning machine cover so that the cover closes below the lip exhaust level.

8.4.5.2.8 If a superheated part system is used to comply with the standards for continuous web cleaning machines in 8.4.7 of this section, the owner or operator shall ensure that the temperature of the continuous web part is at least 10 degrees Fahrenheit above the solvent boiling point while the part is traveling through the cleaning machine.

8.4.5.2.9 If a squeegee system is used to comply with the continuous web

cleaning requirements of 8.4.7.3.3 or 8.4.8.2.1 of this section, the owner or operator shall comply with the following requirements.

8.4.5.2.9.1 Determine the appropriate maximum product throughput for the squeegees used in the squeegee system, as described in 8.6.6 of this section.

8.4.5.2.9.2 Conduct the weekly monitoring required in 8.7.1.3 of this section. Record ~~both~~ the results ~~of the visual inspection and the length of continuous web product cleaned during the previous week~~ required in 8.8.1.6 of this section.

8.4.5.2.9.3 Calculate the total amount of continuous web product processed since the squeegees were replaced and compare to the maximum product throughput for the squeegees.

8.4.5.2.9.4 Ensure squeegees are replaced at or before the maximum product throughput is attained.

8.4.5.2.9.5 Redetermine the maximum product throughput for the squeegees if any solvent film is visible on the continuous web part immediately after it exits the cleaning machine.

8.4.5.2.10 If an air knife system is used to comply with the continuous web cleaning requirements of 8.4.7.3.3 or 8.4.8.2.1 of this section, the owner or operator shall comply with the following requirements.

8.4.5.2.10.1 Determine the air knife parameter and parameter value that demonstrate to the Department's satisfaction that the air knife is properly operating. An air knife is properly operating if no visible solvent film remains on the continuous web part after it exits the cleaning machine.

8.4.5.2.10.2 Maintain the selected air knife parameter value at the level determined in 8.4.5.2.10.1 of this section.

8.4.5.2.10.3 Conduct the weekly monitoring required in 8.7.1.3 of this section.

8.4.5.2.10.4 Redetermine the proper air knife parameter value if any solvent film is visible on the continuous web part immediately after it exits the cleaning machine.

8.4.5.2.11 If a combination squeegee and air knife system is used to comply with the continuous web cleaning requirements of 8.4.7.3.3 or 8.4.8.2.1 of this section, the owner or operator shall comply with the following requirements.

8.4.5.2.11.1 Determine the system parameter and value that demonstrate to the Department's satisfaction that the system is properly operating.

8.4.5.2.11.2 Maintain the selected parameter value at the level determined in 8.4.5.2.11.1 of this section.

8.4.5.2.11.3 Conduct the weekly monitoring required in 8.7.1.3 of this section.

8.4.5.2.11.4 Redetermine the proper parameter value if any solvent film is visible on the continuous web part immediately after it exits the cleaning machine.

8.4.5.3 If any of the requirements of 8.4.5.2 of this section are not met, determine whether an exceedance has occurred using the criteria in 8.4.5.3.1 and 8.4.5.3.2 of this section.

8.4.5.3.1 An exceedance has occurred if the requirements of 8.4.5.2.2.2, 8.4.5.2.3.1, 8.4.5.2.4.1, 8.4.5.2.5, 8.4.5.2.6.2, 8.4.5.2.6.3, 8.4.5.2.7.2, 8.4.5.2.7.3, 8.4.5.2.8, 8.4.5.2.9.1 through 8.4.5.2.9.4, 8.4.5.2.10.1 through 8.4.5.2.10.3, or 8.4.5.2.11.1 through 8.4.5.2.11.3 of this section have not been met.

8.4.5.3.2 An exceedance has occurred if the requirements of 8.4.5.2.1, 8.4.5.2.2.1, 8.4.5.2.3.2, 8.4.5.2.4.2, 8.4.5.2.6.1, 8.4.5.2.7.1, 8.4.5.2.9.5, 8.4.5.2.10.4, or 8.4.5.2.11.4 of this section have not been met and are not corrected within 15 days of detection. Adjustments or repairs shall be made to the solvent cleaning system or control device to reestablish required levels. The parameter must be remeasured immediately upon adjustment or repair and demonstrated to be within required limits.

8.4.5.4 The owner or operator shall report all exceedances and all corrections and adjustments made to avoid an exceedance as specified in 8.9.8 of this section.

8.4.6 Each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the idling emission limit standards in 8.4.2.1.2, 8.4.2.2.2, 8.4.3.1.2, or 8.4.3.2.2 of this section shall comply with the requirements specified in 8.4.6.1 through 8.4.6.5 of this section.

8.4.6.1 Conduct an initial performance test to comply with the requirements specified in

8.4.6.1.1 and 8.4.6.1.2 of this section.

8.4.6.1.1 Demonstrate compliance with the applicable idling emission limit.

8.4.6.1.2 Establish parameters that will be monitored to demonstrate compliance. If a control device is used that is listed in 8.4.5.2 of this section, then the requirements for that control device as listed in 8.4.5.2 shall be used unless the owner or operator can demonstrate to the Administrator's satisfaction that an alternative strategy is equally effective.

8.4.6.2 Conduct the periodic monitoring of the parameters used to demonstrate compliance as described in 8.7.6 of this section.

8.4.6.3 Operate the solvent cleaning machine within parameters identified in the initial performance test.

8.4.6.4 If any of the requirements in 8.4.6.1 through 8.4.6.3 of this section are not met, determine whether an exceedance has occurred using the criteria in 8.4.6.4.1 and 8.4.6.4.2 of this section.

8.4.6.4.1 If using a control listed in 8.4.5 of this section, the owner or operator shall comply with the appropriate parameter values in 8.4.5.2 of this section and the exceedance delineations in 8.4.5.3.1 and 8.4.5.3.2 of this section.

8.4.6.4.2 If using a control not listed in 8.4.5 of this section, the owner or operator shall indicate whether the exceedance of the parameters that are monitored to determine the proper functioning of this control would be classified as an immediate exceedance or whether a 15 day repair period would be allowed. This information must be submitted to the Administrator for approval.

8.4.6.5 The owner or operator shall report all exceedances and all corrections and adjustments made to avoid an exceedance as specified in 8.9.8 of this section.

8.4.7 Except as provided in 8.4.8 and 8.5 of this section for remote reservoir continuous web cleaning machines, each owner or operator of a continuous web cleaning machine shall comply with 8.4.7.1 through 8.4.7.4 of this section for each continuous web cleaning machine.

8.4.7.1 Except as provided in 8.4.7.2 of this section, install, maintain, and operate one of the following control combinations on each continuous web cleaning machine.

8.4.7.1.1 For each existing continuous web cleaning machine, the following control combinations are allowed:

8.4.7.1.1.1 Superheated vapor or superheated part technology, and a freeboard ratio of 1.0 or greater.

8.4.7.1.1.2 Freeboard refrigeration device and a freeboard ratio of 1.0 or greater.

8.4.7.1.1.3 Carbon adsorption system meeting the requirements of 8.4.5.2.7 of this section.

8.4.7.1.2 For each new continuous web cleaning machine, the following control combinations are allowed:

8.4.7.1.2.1 Superheated vapor or superheated part technology, and a freeboard refrigeration device.

8.4.7.1.2.2 A freeboard refrigeration device and a carbon adsorber meeting the requirements of 8.4.5.2.7 of this section.

8.4.7.1.2.3 Superheated vapor or superheated part technology, and a carbon adsorber meeting the requirements of 8.4.5.2.7 of this section.

8.4.7.2 If a carbon adsorber system can be demonstrated to the Department's satisfaction to have an overall solvent control efficiency (i.e., capture efficiency times removal efficiency) of 70 percent or greater, this system is equivalent to the options in 8.4.7 of this section.

8.4.7.3 In lieu of complying with the provisions of 8.4.1 of this section, the owner or operator of a continuous web cleaning machine shall comply with the following provisions:

8.4.7.3.1 Each cleaning machine shall meet one of the following control equipment or technique requirements:

8.4.7.3.1.1 An idling and downtime mode cover, as described in 8.4.4.1.1 of this section, that may be readily opened or closed; that completely covers the cleaning machine openings when in place; and is free of cracks, holes, and other defects. A continuous web part that completely occupies an entry or exit port when the machine is idle is considered to meet this requirement.

8.4.7.3.1.2 A reduced room draft as described in 8.4.5.2.2 of this

section.

8.4.7.3.1.3 Gasketed or leak-proof doors that separate both the continuous web part feed reel and take-up reel from the room atmosphere if the doors are checked according to the requirements of 8.4.5.2.3 of this section.

8.4.7.3.1.4 A cleaning machine that is demonstrated to the Department's satisfaction to be under negative pressure during idling and downtime and is vented to a carbon adsorption system that meets the requirements of either 8.4.5.2.7 or 8.4.7.2 of this section.

8.4.7.3.2 Each continuous web cleaning machine shall have a freeboard ratio of 0.75 or greater unless that cleaning machine is a remote reservoir continuous web cleaning machine.

8.4.7.3.3 Each cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts, unless the cleaning machine is a continuous web cleaning machine that has a squeegee system or air knife system installed, maintained, and operated on the continuous web cleaning machine meeting the requirements of 8.4.5 of this section.

8.4.7.3.4 Each vapor cleaning machine shall be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils. This requirement does not apply to a vapor cleaning machine that uses steam to heat the solvent.

8.4.7.3.5 Each vapor cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.

8.4.7.3.6 Each vapor cleaning machine shall have a primary condenser.

8.4.7.3.7 Each cleaning machine that uses a lip exhaust or any other exhaust within the solvent cleaning machine shall be designed and operated to route all collected solvent vapors through a properly operated and maintained carbon adsorber that meets the requirements of either 8.4.5.2.7 or 8.4.7.2 of this section.

8.4.7.4 In lieu of complying with the provisions of 8.4.4 of this section, the owner or operator of a continuous web cleaning machine shall comply with the following provisions:

8.4.7.4.1 Control air disturbances across the cleaning machine opening or openings by incorporating one of the following control equipment or techniques:

8.4.7.4.1.1 Cover or covers to each solvent cleaning machine shall be in place during the idling mode and during the downtime mode unless either the solvent has been removed from the machine or maintenance or monitoring is being performed that requires the cover or covers to not be in place. A continuous web part that completely occupies an entry or exit port when the machine is idle is considered to meet this requirement.

8.4.7.4.1.2 A reduced room draft as described in 8.4.5.2.2 of this section.

8.4.7.4.1.3 Gasketed or leak-proof doors or covers that separate both the continuous web part feed reel and take-up reel from the room atmosphere if the doors are checked according to the requirements of 8.4.5.2.3 of this section.

8.4.7.4.1.4 A cleaning machine that is demonstrated to the Department's satisfaction to be under negative pressure during idling and downtime and is vented to a carbon adsorption system that meets either the requirements of 8.4.5.2.7 or 8.4.7.2 of this section.

8.4.7.4.2 Any spraying operations shall be conducted in a section of the solvent cleaning machine that is not directly exposed to the ambient air (i.e., a baffled or enclosed area of the solvent cleaning machine) or within a machine having a door or cover that meets the requirements of 8.4.7.4.1.3 of this section. The solvent spray shall be a solid fluid stream, not an atomized or shower spray.

8.4.7.4.3 During startup of each vapor cleaning machine, the primary condenser shall be turned on before the sump heater.

8.4.7.4.4 During shutdown of each vapor cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.

8.4.7.4.5 When solvent is added to or drained from any solvent cleaning machine, the solvent shall be transferred using threaded or other leak-proof couplings, and the discharge end of the pipe shall be located beneath the liquid solvent surface.

8.4.7.4.6 Each solvent cleaning machine and associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the Administrator's satisfaction to achieve the same or better results as those recommended by the manufacturers.

8.4.7.4.7 Waste solvent, still bottoms, sump bottoms, and waste absorbent materials used in the cleaning process for continuous web cleaning machines shall be collected and stored in waste containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.

8.4.7.4.8 Except as provided in 8.4.7.4.9 of this section, sponges, fabric, wood, and paper products shall not be cleaned.

8.4.7.4.9 The prohibition 8.4.7.4.8 of this section does not apply to absorbent materials that are used as part of the cleaning process of continuous web cleaning machines, including rollers and roller covers.

8.4.7.4.10 Each operator of a solvent cleaning machine shall complete and pass the applicable sections of the test of solvent cleaning procedures in Appendix A of Section 8.0 of this regulation if requested during an inspection by the Department.

8.4.7.4.11 Spills during solvent transfer or use of the solvent cleaning machine shall be wiped up immediately. The wipe rags or other sorbent material shall be stored in closed containers meeting the requirements of 8.4.7.4.7 of this section.

8.4.7.4.12 Work area fans shall be located and positioned so that they do not blow across the opening of the solvent cleaning machine.

8.4.7.4.13 The owner or operator shall provide a permanent, legible, conspicuous label summarizing the operating requirements in 8.4.7.4 of this section.

8.4.8 Except as provided in 8.5 of this section, each owner or operator of a remote reservoir continuous web cleaning machine shall comply with 8.4.8.1 through 8.4.8.3 of this section.

8.4.8.1 Except as provided in 8.4.8.2 of this section, install, maintain, and operate one of the following controls on each new remote reservoir continuous web cleaning machine.

8.4.8.1.1 Superheated vapor or superheated part technology.

8.4.8.1.2 A carbon adsorber meeting the requirements of 8.4.5.2.7 of this section.

8.4.8.1.3 If a carbon adsorber system can be demonstrated to the Department's satisfaction to have an overall solvent control efficiency (i.e., capture efficiency times removal efficiency) of 70 percent or greater, this system is equivalent to the options in 8.4.8.1.1 and 8.4.8.1.2 of this section.

8.4.8.2 In lieu of complying with the provisions of 8.4.1 of this section, the owner or operator of a remote reservoir continuous web cleaning machine shall comply with the following provisions:

8.4.8.2.1 Each cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts, unless the cleaning machine is a continuous web cleaning machine that has a squeegee system or air knife system installed, maintained, and operated on the continuous web cleaning machine meeting the requirements of 8.4.5 of this section.

8.4.8.2.2 Each vapor cleaning machine shall be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils.

8.4.8.2.3 Each vapor cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.

8.4.8.2.4 Each vapor cleaning machine shall have a primary condenser.

8.4.8.2.5 Each cleaning machine that uses a lip exhaust or any other exhaust within the solvent cleaning machine shall be designed and operated to route all collected solvent vapors through a properly operated and maintained carbon adsorber that meets the requirements of either 8.4.5.2.7 or 8.4.7.2 of this section.

8.4.8.3 In lieu of complying with the provisions of 8.4.4 of this section, the owner or operator of a remote reservoir continuous web cleaning machine shall comply with the following provisions:

8.4.8.3.1 Any spraying operations shall be conducted in a section of the solvent cleaning machine that is not directly exposed to the ambient air (i.e., a baffled or enclosed area of the

solvent cleaning machine) or within a machine having a door or cover that meets the requirements of 8.4.7.4.1.3 of this section. The solvent spray shall be a solid fluid stream, not an atomized or shower spray.

8.4.8.3.2 During startup of each vapor cleaning machine, the primary condenser shall be turned on before the sump heater.

8.4.8.3.3 During shutdown of each vapor cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.

8.4.8.3.4 When solvent is added to or drained from any solvent cleaning machine, the solvent shall be transferred using threaded or other leak-proof couplings, and the discharge end of the pipe shall be located beneath the liquid solvent surface.

8.4.8.3.5 Each solvent cleaning machine and associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the Administrator's satisfaction to achieve the same or better results as those recommended by the manufacturers.

8.4.8.3.6 Waste solvent, still bottoms, sump bottoms, and waste absorbent materials used in the cleaning process for continuous web cleaning machines shall be collected and stored in ~~waste~~ closed containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.

8.4.8.3.7 Except as provided in 8.4.8.3.8 of this section, sponges, fabric, wood, and paper products shall not be cleaned.

8.4.8.3.8 The prohibition in 8.4.8.3.7 of this section does not apply to absorbent materials that are used as part of the cleaning process of continuous web cleaning machines, including rollers and roller covers.

8.4.8.3.9 Each operator of a solvent cleaning machine shall complete and pass the applicable sections of the test of solvent cleaning procedures in Appendix A of Section 8.0 of this regulation if requested during an inspection by the Department.

8.4.8.3.10 Spills during solvent transfer or use of the solvent cleaning machine shall be wiped up immediately. The wipe rags or other sorbent material shall be stored in closed containers meeting the requirements of 8.4.8.3.6 of this section.

8.4.8.3.11 Work area fans shall be located and positioned so that they do not blow across the opening of the solvent cleaning machine.

8.4.8.3.12 The owner or operator shall provide a permanent, legible, conspicuous label summarizing the operating requirements in 8.4.8.3 of this section.

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8.5 Alternative standards.

8.5.1 As an alternative to meeting the requirements in 8.4 of this section, each owner or operator of a batch vapor or in-line solvent cleaning machine can elect to comply with the requirements of 8.5 of this section. An owner or operator of a solvent cleaning machine who elects to comply with 8.5 shall comply with the requirements specified in either 8.5.1.1 or 8.5.1.2 of this section.

8.5.1.1 If the cleaning machine has a solvent/air interface, as defined in 15.2 of this section, the owner or operator shall comply with the requirements specified in 8.5.1.1.1 and 8.5.1.1.2 of this section.

8.5.1.1.1 Maintain a log of solvent additions and deletions for each solvent cleaning machine.

8.5.1.1.2 Ensure that the emissions from each solvent cleaning machine are equal to or less than the applicable emission limit presented in Table 8.5-1 of this regulation as determined using the procedures in 8.6.2 and 8.6.3 of this section.

Table 8.5-1 -- Emission Limits for Batch Vapor and In-Line Solvent Cleaning Machines With a Solvent/Air Interface

Solvent cleaning machine	3-month rolling average monthly emission limit (kilograms/square meters/month)
Batch vapor solvent cleaning machines	150
Existing in-line solvent cleaning machines	153
New in-line solvent cleaning machines	99

8.5.1.2 If the cleaning machine is a batch vapor cleaning machine and does not have a solvent/air interface, the owner or operator shall comply with the requirements specified in 8.5.1.2.1 and 8.5.1.2.2 of this section.

8.5.1.2.1 Maintain a log of solvent additions and deletions for each solvent cleaning machine.

8.5.1.2.2 Ensure that the emissions from each solvent cleaning machine are equal to or less than the appropriate limits as described in 8.5.1.2.2.1 or 8.5.1.2.2.2 of this section, as applicable.

8.5.1.2.2.1 For cleaning machines with a cleaning capacity, as reported in 8.9.4 of this section, that is less than or equal to 2.95 cubic meters (104 cubic feet), the emission limit shall be determined using Table 8.5-2. If the cleaning capacity of the cleaning machine falls between two cleaning capacity sizes, then the lower of the two emission limits applies.

Table 8.5-2 --Emission Limits for Cleaning Machines Without a Solvent/Air Interface

Cleaning capacity (cubic meters)	3-month rolling average monthly emission limit (kilograms/month)	Cleaning capacity (cubic meters)	3-month rolling average monthly emission limit (kilograms/month)
0.00	0	1.50	421
0.05	55	1.55	429
0.10	83	1.60	438
0.15	106	1.65	446
0.20	126	1.70	454
0.25	144	1.75	462
0.30	160	1.80	470
0.35	176	1.85	477
0.40	190	1.90	485
0.45	204	1.95	493
0.50	218	2.00	500
0.55	231	2.05	508
0.60	243	2.10	515
0.65	255	2.15	522
0.70	266	2.20	530
0.75	278	2.25	537
0.80	289	2.30	544
0.85	299	2.35	551
0.90	310	2.40	558
0.95	320	2.45	565
1.00	330	2.50	572
1.05	340	2.55	579

1.10	349	2.60	585
1.15	359	2.65	592
1.20	368	2.70	599
1.25	377	2.75	605
1.30	386	2.80	612
1.35	395	2.85	619
1.40	404	2.90	625
1.45	412	2.95	632

8.5.1.2.2.2 For cleaning machines with a cleaning capacity as reported in 8.9.4 of this section, that is greater than 2.95 cubic meters, the emission limit shall be determined using equation 1.

$$EL = 330 * (Vol)^{0.6} \quad (1)$$

where:

EL = the 3-month rolling average monthly emission limit (kilograms/month).

Vol = the cleaning capacity of the solvent cleaning machine (cubic meters).

8.5.2 Each owner or operator of a batch vapor or in-line solvent cleaning machine complying with 8.5.1 of this section shall demonstrate compliance with the applicable 3-month rolling average monthly emission limit on a monthly basis as described in 8.6.2 and 8.6.3 of this section.

8.5.3 If the applicable 3-month rolling average emission limit is not met, an exceedance has occurred. All exceedances shall be reported as required in 8.9.8 of this section.

8.5.4 As an alternative to meeting the requirements in 8.4 of this section, each owner or operator of a continuous web cleaning machine can demonstrate an overall cleaning system control efficiency of 70 percent or greater using the procedures in 8.6.7 of this section. This demonstration can be made for either a single cleaning machine or for a solvent cleaning system that contains one or more cleaning machines and ancillary equipment, such as storage tanks and distillation units. If the demonstration is made for a cleaning system, the facility must identify any modifications required to the procedures in 8.6.7 and they must be approved by the Administrator.

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8.6 Test methods.

8.6.1 Except as provided in 8.6.6 and 8.6.7 of this section for continuous web cleaning machines, each owner or operator of a batch vapor or in-line solvent cleaning machine complying with an idling emission limit standard in 8.4.2.1.2, 8.4.2.2.2, 8.4.3.1.2, or 8.4.3.2.2 of this section shall determine the idling emission rate of the solvent cleaning machine using Method 307 in Appendix A of 40 CFR Part 63.

8.6.2 Except as provided in 8.6.7 of this section for continuous web cleaning machines, each owner or operator of a batch vapor or in-line solvent cleaning machine complying with 8.5 of this section shall, on the first operating day of every month ensure that the solvent cleaning machine system contains only clean liquid solvent. This includes, but is not limited to, fresh unused solvent, recycled solvent, and used solvent that ~~has~~ have been cleaned of soils. A fill line must be indicated during the first month the measurements are made. The solvent level within the machine must be returned to the same fill-line each month, immediately prior to calculating monthly emissions as specified in 8.6.3 of this section. The solvent cleaning machine does not have to be emptied and filled with fresh unused solvent prior to the calculations.

8.6.3 Except as provided in 8.6.6 and 8.6.7 of this section for continuous web cleaning machines, each owner or operator of a batch vapor or in-line solvent cleaning machine complying with 8.5 of this section shall, on the first operating day of the month, comply with the requirements specified in 8.6.3.1 through 8.6.3.3 of this section.

8.6.3.1 Using the records of all solvent additions and deletions for the previous monthly reporting period required ~~under~~ in 8.5.1 of this section, determine solvent emissions (Ei and En) using equation 2 for cleaning machines with a solvent/air interface and using equation 3 for cleaning machines without a solvent/air interface:

Ei = (SAi - LSRi - SSRi) / AREAi (2)

En = (SAi - LSRi - SSRi) (3)

where:

Ei = the total halogenated HAP solvent emissions from the solvent cleaning machine during the most recent monthly reporting period i, (kilograms of solvent per square meter of solvent/air interface area per month).

En = the total halogenated HAP solvent emissions from the solvent cleaning machine during the most recent monthly reporting period i, (kilograms of solvent per month).

SAi = the total amount of halogenated HAP liquid solvent added to the solvent cleaning machine during the most recent monthly reporting period i, (kilograms of solvent per month).

LSRi = the total amount of halogenated HAP liquid solvent removed from the solvent cleaning machine during the most recent monthly reporting period i, (kilograms of solvent per month).

SSRi = the total amount of halogenated HAP solvent removed from the solvent cleaning machine in solid waste, obtained as described in 8.6.3.2 of this section, during the most recent monthly reporting period i, (kilograms of solvent per month).

AREAi = the solvent/air interface area of the solvent cleaning machine (square meters).

8.6.3.2 Determine SSRi using the method specified in 8.6.3.2.1 or 8.6.3.2.2 of this section.

8.6.3.2.1 From tests conducted using ~~EPA reference method~~ Method 25d in Appendix A of 40 CFR Part 60.

8.6.3.2.2 By engineering calculations included in the compliance report.

8.6.3.3 Determine the monthly rolling average (EAi and EAn) for the 3-month period ending with the most recent reporting period using equation 4 for cleaning machines with a solvent/air interface or equation 5 for cleaning machines without a solvent/air interface:

~~EAi = (Σ Ei) / 3 for j from one to three(4)~~

$$EAi = \frac{\sum_{j=1}^{3} Ei}{3} \quad (4)$$

~~EAn = (Σ En) / 3 for j from one to three (5)~~

$$EAn = \frac{\sum_{j=1}^{3} En}{3} \quad (5)$$

where:

EAi = the average halogenated HAP solvent emissions over the preceding 3 monthly reporting periods, (kilograms of solvent per square meter of solvent/air interface area per month).

EAn = the average halogenated HAP solvent emissions over the preceding 3 monthly reporting periods, (kilograms of solvent per month).

Ei = halogenated HAP solvent emissions for each month (j) for the most recent 3 monthly reporting periods, (kilograms of solvent per square meter of solvent/air interface area per month).

En = halogenated HAP solvent emissions for each month (j) for the most recent 3 monthly reporting periods, (kilograms of solvent per month).

j = 1 = the most recent monthly reporting period.

j = 2 = the monthly reporting period immediately prior to j = 1.

j = 3 = the monthly reporting period immediately prior to j = 2.

8.6.4 Each owner or operator of a batch vapor or in-line solvent cleaning machine using a dwell to comply with 8.4 of this section shall determine the appropriate dwell time for each part or parts basket using the procedure specified in 8.6.4.1 and 8.6.4.2 of this section.

8.6.4.1 Determine the amount of time for the part or parts basket to cease dripping once placed in the vapor zone. The part or parts basket used for this determination must be at room temperature before being placed in the vapor zone.

8.6.4.2 The proper dwell time for parts to remain in the freeboard area above the vapor zone is no less than 35 percent of the time determined in 8.6.4.1 of this section.

8.6.5 An owner or operator of a source shall determine their potential to emit from all solvent cleaning operations, using the procedures described in 8.6.5.1 through 8.6.5.3 of this section. A facility's total potential to emit is the sum of the HAP emissions from all solvent cleaning operations, plus all HAP emissions from other sources within the facility.

8.6.5.1 Determine the potential to emit (PTEi) for each individual solvent cleaning machine using equation 6.

PTEi = Hi * Wi * SAIi (6)

where:

PTEi = the potential to emit for solvent cleaning machine i, (kilograms of solvent per year).

Hi = hours of operation for solvent cleaning machine i, (hours per year).

= 8760 hours per year, unless otherwise restricted by a Federally enforceable requirement.

Wi = the working mode uncontrolled emission rate, (kilograms per square meter per hour).

= 1.95 kilograms per square meter per hour for batch vapor and cold cleaning machines.

= 1.12 kilograms per square meter per hour for in-line cleaning machines.

SAIi = solvent/air interface area of each solvent cleaning machine i, (square meters). The solvent/air interface area for those machines that have a solvent/air interface is defined in 15.2 of this section. Cleaning machines that do not have a solvent/air interface shall calculate a solvent/air interface area using the procedure in 8.6.5.2 of this section.

8.6.5.2 Cleaning machines that do not have a solvent/air interface shall calculate a solvent/air interface area (SAI) using equation 7.

$SAI = 2.20 * (Vol)^{0.6}$ (7)

where:

SAI = the solvent/air interface area, (square meters).

Vol = the cleaning capacity of the solvent cleaning machine, (cubic meters).

8.6.5.3 Sum the PTEi for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.

8.6.6 Each owner or operator of a continuous web cleaning machine using a squeegee system to comply with 8.4.7.3 of this section shall determine the maximum product throughput using the method described in 8.6.6.1 through 8.6.6.4 of this section. The maximum product throughput for each squeegee type used at a facility must be determined prior to November 11, 2001, the compliance date for these ~~units~~ solvent cleaning machines.

8.6.6.1 Conduct daily visual inspections of the continuous web part. This monitoring shall be conducted at the point where the continuous web part exits the squeegee system. It is not necessary for the squeegees to be new at the time monitoring is begun if the following two conditions are met:

8.6.6.1.1 The continuous web part leaving the squeegee system has no visible solvent film.

8.6.6.1.2 The amount of continuous web that has been processed through the squeegees since the last replacement is known.

8.6.6.2 Continue daily monitoring until a visible solvent film is noted on the continuous web part.

8.6.6.3 Determine the length of continuous web product that has been cleaned using the squeegee since it was installed.

8.6.6.4 The maximum product throughput for the purposes of Section 8.0 of this regulation is equal to the time it takes to clean 95 percent of the length of product determined in 8.6.6.3 of this section. This time period, in days, may vary depending on the amount of continuous web product cleaned each day.

8.6.7 Each owner or operator of a continuous web cleaning machine demonstrating compliance with the alternative standard of 8.5.4 of this section shall, on the first day of every month, ensure that the solvent cleaning machine contains only clean liquid solvent. This includes, but is not limited to, fresh unused solvent, recycled solvent, and used solvent that ~~has~~ have been cleaned of soils. A fill-line must be indicated during the first month the measurements are made. The solvent level with the machine must be returned to the same fill-line each month, immediately prior to calculating overall cleaning system control efficiency emissions as specified in 8.6.8 of this section. The solvent cleaning machine does not need to be emptied and filled with fresh unused solvent prior to the calculation.

8.6.8 Each owner or operator of a continuous web cleaning machines complying with 8.5.4 of this section shall, on the first operating day of the month, comply with the following requirements.

8.6.8.1 Using the records of all solvent additions, solvent deletions, and solvent recovered from the carbon adsorption system for the previous monthly reporting period required ~~under~~ in 8.8.5 of this section, determine the overall cleaning system control efficiency (Eo) using equation 8 ~~of this section~~ as follows:

Eo = (Ri * 100) / (Ri + Sai - SSRi) (~~Eq.~~ 8)

where:

Eo = overall cleaning system control efficiency.

Ri = the total amount of halogenated HAP liquid solvent recovered from the carbon adsorption system and recycled to the solvent cleaning system during the most recent monthly reporting period, i, (kilograms of solvent per month).

Sai = the total amount of halogenated HAP liquid solvent added to the solvent cleaning system during the most recent monthly reporting period, i, (kilograms of solvent per month).

SSRi = the total amount of halogenated HAP solvent removed from the solvent cleaning system in solid waste, obtained as described in 8.6.3.2 of this section, during the most recent monthly reporting period, i, (kilograms of solvent per month).

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8.7 Monitoring procedures.

8.7.1 Except as provided in 8.7.7 of this section, each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the equipment standards in 8.4.2.1.1, 8.4.2.2.1, 8.4.3.1.1, 8.4.3.2.1, 8.4.7.1, or 8.4.7.2 of this section shall conduct monitoring and record the results on a weekly basis for the control devices, as appropriate, specified in 8.7.1.1 through 8.7.1.5 of this section.

8.7.1.1 If a freeboard refrigeration device is used to comply with these standards, the owner or operator shall use a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode.

8.7.1.2 If a superheated vapor system is used to comply with these standards, the owner or operator shall use a thermometer or thermocouple to measure the temperature at the center of the superheated solvent vapor zone while the solvent cleaning machine is in the idling mode.

8.7.1.3 If a squeegee system, air knife system, or combination squeegee and air knife system is used to comply with the requirements of 8.4.7 or 8.4.8 of this section, the owner or operator shall visually inspect the continuous web part exiting the solvent cleaning machine to ensure that no solvent film is visible on the part.

8.7.1.4 Except as provided in 8.7.1.5 of this section, if a superheated part system is used to comply with the requirements of 8.4.7 or 8.4.8 of this section, the owner or operator shall use a thermometer, thermocouple, or other temperature measurement device to measure the temperature of the continuous web part

while it is in the solvent cleaning machine. This measurement can also be taken at the exit of the solvent cleaning machine.

8.7.1.5 As an alternative to complying with 8.7.1.4 of this section, the owner or operator can provide data, sufficient to satisfy the Department, that demonstrate that the part temperature remains above the boiling point of the solvent at all times that the part is within the continuous web solvent cleaning machine. This data could include design and operating conditions such as information supporting any exothermic reaction inherent in the processing.

8.7.2 Except as provided in 8.7.7 of this section, each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the equipment standards of 8.4.2.1.1, 8.4.2.2.1, 8.4.3.1.1, or 8.4.3.2.1 of this section shall conduct monitoring and record the results on a monthly basis for the control devices, as appropriate, specified in 8.7.2.1 and 8.7.2.2 of this section.

8.7.2.1 If a cover (working-mode, downtime-mode, or idling-mode cover) is used to comply with these standards, the owner or operator shall conduct a visual inspection to determine if the cover is opening and closing properly, completely covers the cleaning machine openings when closed, and is free of cracks, holes, and other defects.

8.7.2.2 If a dwell is used, the owner or operator shall determine the actual dwell time by measuring the period of time that parts are held within the freeboard area of the solvent cleaning machine after cleaning.

8.7.3 Except as provided in 8.7.7 of this section, each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the equipment or idling standards in 8.4 of this section shall monitor the hoist speed and record the results as described in 8.7.3.1 through 8.7.3.4 of this section.

8.7.3.1 The owner or operator shall determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes (meters per minute).

8.7.3.2 The monitoring shall be conducted monthly. If after the first year, no exceedances of the hoist speed are measured, the owner or operator may begin monitoring the hoist speed quarterly.

8.7.3.3 If an exceedance of the hoist speed occurs during quarterly monitoring, the monitoring frequency returns to monthly until another year of compliance without an exceedance is demonstrated.

8.7.3.4 If an owner or operator can demonstrate to the Department's satisfaction in the initial compliance report that the hoist cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance.

8.7.4 Except as provided in 8.7.7 of this section, each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the equipment standards in 8.4.2.1.1, 8.4.2.2.1, 8.4.3.1.1, or 8.4.3.2.1 of this section using a reduced room draft shall conduct monitoring and record the results as specified in 8.7.4.1 or 8.7.4.2 of this section.

8.7.4.1 If the reduced room draft is maintained by controlling room parameters (i.e., redirecting fans, closing doors and windows, etc.), the owner or operator shall conduct an initial monitoring test of the wind speed and of room parameters, quarterly monitoring of wind speed, and weekly monitoring of room parameters as specified in 8.7.4.1.1 and 8.7.4.1.2 of this section.

8.7.4.1.1 Measure the wind speed within 6 inches above the top of the freeboard area of the solvent cleaning machine using the procedure specified in 8.7.4.1.1.1 through 8.7.4.1.1.4 of this section.

8.7.4.1.1.1 Determine the direction of the wind current by slowly rotating a velometer or similar device until the maximum speed is located.

8.7.4.1.1.2 Orient a velometer in the direction of the wind current at each of the four corners of the machine.

8.7.4.1.1.3 Record the reading for each corner.

8.7.4.1.1.4 Average the values obtained at each corner and record the average wind speed.

8.7.4.1.2 Monitor on a weekly basis the room parameters established during the initial compliance test that are used to achieve the reduced room draft.

8.7.4.2 If an enclosure (full or partial) is used to achieve a reduced room draft, the owner or operator shall conduct an initial monitoring test and, thereafter, monthly monitoring tests of the wind speed within the enclosure using the procedure specified in 8.7.4.2.1 and 8.7.4.2.2 of this section and a monthly visual

inspection of the enclosure to determine if it is free of cracks, holes and other defects.

8.7.4.2.1 Determine the direction of the wind current in the enclosure by slowly rotating a velometer inside the entrance to the enclosure until the maximum speed is located.

8.7.4.2.2 Record the maximum wind speed.

8.7.5 Except as provided in 8.7.7 of this section, each owner or operator using a carbon adsorber to comply with Section 8.0 of this regulation shall measure and record the concentration of halogenated HAP solvents in the exhaust of the carbon adsorber daily. This test shall be conducted while the solvent cleaning machine is in the working mode and is venting to the carbon adsorber. The exhaust concentration shall be determined as specified in 8.7.5.1 and 8.7.5.2 of this section.

8.7.5.1 Measure the solvent concentration in the exhaust using one of the following analytical techniques:

8.7.5.1.1 A colorimetric detector tube designed to measure a concentration of 25 parts per million by volume of the halogenated HAP solvent in air to an accuracy of $\pm$ 25 percent and used in accordance with the manufacturer's instructions.

8.7.5.1.2 A flame ionization analyzer used in accordance with Method 25A in Appendix A of 40 CFR Part 60.

8.7.5.1.3 A nondispersive infrared analyzer used in accordance with Method 25B in Appendix A of 40 CFR Part 60.

8.7.5.2 Provide a sampling port for monitoring within the exhaust outlet of the carbon adsorber that is easily accessible and located at least 8 stack or duct diameters downstream from any flow disturbance such as a bend, expansion, contraction, or outlet; downstream from no other inlet; and 2 stack or duct diameters upstream from any flow disturbance such as a bend, expansion, contraction, inlet or outlet.

8.7.6 Each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the idling emission limit standards of 8.4.2.1.2, 8.4.2.2.2, 8.4.3.1.2, or 8.4.3.2.2 of this section shall comply with the requirements specified in 8.7.6.1 and 8.7.6.2 of this section.

8.7.6.1 If using controls listed in 8.7.1 through 8.7.5 of this section, the owner or operator shall comply with the monitoring frequency requirements in 8.7.1 through 8.7.5.

8.7.6.2 If using controls not listed in 8.7.1 through 8.7.5 of this section, the owner or operator shall establish the monitoring frequency for each control and submit it to the Administrator for approval in the initial test report.

8.7.7 Each owner or operator using a control device listed in 8.7.1 through 8.7.5 of this section can use alternative monitoring procedures approved by the Administrator.

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8.8 Recordkeeping requirements.

8.8.1 Each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the provisions of 8.4 of this section shall maintain records in written or electronic form specified in 8.8.1.1 through 8.8.1.7 of this section for the lifetime of the machine.

8.8.1.1 Owner's manuals, or if not available, written maintenance and operating procedures, for the solvent cleaning machine and control equipment.

8.8.1.2 The date of installation for the solvent cleaning machine and all of its control devices. If the exact date for installation is not known, a letter certifying that the cleaning machine and its control devices were installed prior to, or on, November 29, 1993, or after November 29, 1993, may be substituted.

8.8.1.3 If a dwell is used to comply with these standards, records of the tests required in 8.6.4 of this section to determine an appropriate dwell time for each part or parts basket.

8.8.1.4 Each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the idling emission limit standards of 8.4.2.1.2, 8.4.2.2.2, 8.4.3.1.2, or 8.4.3.2.2 of this section shall maintain records of the initial performance test, including the idling emission rate and values of the monitoring parameters measured during the test.

8.8.1.5 Records of the halogenated HAP solvent content for each solvent used in a solvent cleaning machine subject to the provisions of Section 8.0 of this regulation.

8.8.1.6 If a squeegee system is used to comply with these standards, records of the test required in 8.7.6 of this section to determine the maximum product throughput for the squeegees and records of both the weekly monitoring required in 8.7.1.3 of this section for visual inspection and the length of continuous web product cleaned during the previous week.

8.8.1.7 If an air knife system or a combination squeegee and air knife system is used to comply with these standards, records of the determination of the proper operating parameter and parameter value for the air knife system.

8.8.2 Each owner or operator of a batch vapor or in-line solvent cleaning machine complying with 8.4 of this section shall maintain records specified in 8.8.2.1 through 8.8.2.4 of this section either in electronic or written form for a period of 5 years.

8.8.2.1 The results of control device monitoring required ~~under~~ in 8.7 of this section.

8.8.2.2 Information on the actions taken to comply with 8.4.5 and 8.4.6 of this section. This information shall include records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.

8.8.2.3 Estimates of annual solvent consumption for each solvent cleaning machine.

8.8.2.4 If a carbon adsorber is used to comply with these standards, records of the date and results of the daily measurement of the halogenated HAP solvent concentration in the carbon adsorber exhaust required in 8.7.5 of this section.

8.8.3 Except as provided in 8.8.5 of this section for continuous web cleaning machines, each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the provisions of 8.5 of this section shall maintain records specified 8.8.3.1 through 8.8.3.3 of this section either in electronic or written form for a period of 5 years.

8.8.3.1 The dates and amounts of solvent that are added to the solvent cleaning machine.

8.8.3.2 The solvent composition of wastes removed from cleaning machines as determined using the procedure described in 8.6.3.2 of this section.

8.8.3.3 Calculation sheets showing how monthly emissions and the rolling 3-month average emissions from the solvent cleaning machine were determined, and the results of all calculations.

8.8.4 Each owner or operator of a solvent cleaning machine without a solvent/air interface complying with the provisions of 8.5 of this section shall maintain records on the method used to determine the cleaning capacity of the cleaning machine.

8.8.5 Each owner or operator of a continuous web cleaning machine complying with the provisions of 8.5.4 of this section shall maintain the following records in either electronic or written form for a period of 5 years.

8.8.5.1 The dates and amounts of solvent that are added to the solvent cleaning machine.

8.8.5.2 The dates and amounts of solvent that are recovered from the desorption of the carbon adsorber system.

8.8.5.3 The solvent composition of wastes removed from each cleaning machine as determined using the procedures in 8.6.3.2 of this section.

8.8.5.4 Calculation sheets showing the calculation and results of determining the overall cleaning system control efficiency, as required in 8.6 of this section.

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8.9 Reporting requirements.

8.9.1 Each owner or operator of an existing solvent cleaning machine subject to the provisions of Section 8.0 of this regulation shall submit an initial notification report to the Department no later than November 11, 2001. This report shall include the information specified in 8.9.1.1 through 8.9.1.6 of this section.

8.9.1.1 The name and address of the owner or operator.

8.9.1.2 The address (i.e., physical location) of the solvent cleaning machine or machines.

8.9.1.3 A brief description of each solvent cleaning machine including machine type (batch vapor, batch cold, vapor in-line or cold in-line), solvent/air interface area, and existing controls.

8.9.1.4 The date of installation for each solvent cleaning machine or a letter certifying that the solvent cleaning machine was installed prior to, or ~~after~~ on, November 29, 1993.

8.9.1.5 The anticipated compliance approach for each solvent cleaning machine.

8.9.1.6 An estimate of annual halogenated HAP solvent consumption for each solvent cleaning machine.

8.9.2 Each owner or operator of a new solvent cleaning machine subject to the provisions of Section 8.0 of this regulation shall submit an initial notification report to the Department. New sources shall submit this report as soon as practicable before the construction or reconstruction is planned to commence or November

11, 2001, whichever is later. This report shall include all of the information required in Sec. 63.5(d)(1) of subpart A of this regulation, with the revisions and additions in 8.9.2.1 through 8.9.2.3 of this section.

8.9.2.1 The report shall include a brief description of each solvent cleaning machine including machine type (batch vapor, batch cold, vapor in-line or cold in-line), solvent/air interface area, and existing controls.

8.9.2.2 The report shall include the anticipated compliance approach for each solvent cleaning machine.

8.9.2.3 In lieu of Sec. 63.5(d)(1)(ii)(H) of subpart A of this regulation, the owner or operator must report an estimate of annual halogenated HAP solvent consumption for each solvent cleaning machine.

8.9.3 Each owner or operator of a batch cold solvent cleaning machine subject to the provisions of Section 8.0 of this regulation shall submit a compliance report to the Department. For existing sources, this report shall be submitted to the Department no later than November 11, 2001. For new sources, this report shall be submitted to the Department no later than 150 days after startup or November 11, 2001, whichever is later. This report shall include the requirements specified in 8.9.3.1 through 8.9.3.4 of this section.

8.9.3.1 The name and address of the owner or operator.

8.9.3.2 The address (i.e., physical location) of the solvent cleaning machine or machines.

8.9.3.3 A statement, signed by the owner or operator of the solvent cleaning machine, stating that the solvent cleaning machine for which the report is being submitted is in compliance with the provisions of Section 8.0 of this regulation.

8.9.3.4 The compliance approach for each solvent cleaning machine.

8.9.4 Each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the provisions of 8.4 of this section shall submit to the Department an initial statement of compliance for each solvent cleaning machine. For existing sources, this report shall be submitted to the Department no later than November 11, 2001. For new sources, this report shall be submitted to the Department no later than 150 days after startup or November 11, 2001, whichever is later. This statement shall include the requirements specified in 8.9.4.1 through 8.9.4.7 of this section.

8.9.4.1 The name and address of the owner or operator.

8.9.4.2 The address (i.e., physical location) of the solvent cleaning machine or machines.

8.9.4.3 A list of the control equipment used to achieve compliance for each solvent cleaning machine.

8.9.4.4 For each piece of control equipment required to be monitored, a list of the parameters that are monitored and the values of these parameters measured on or during the first month after the compliance date.

8.9.4.5 Conditions to maintain the wind speed requirements of 8.4.5.2.2 of this section, if applicable.

8.9.4.6 Each owner or operator of a solvent cleaning machine complying with the idling emission limit standards of 8.4.2.1.2, 8.4.2.2.2, 8.4.3.1.2, and 8.4.3.2.2 of this section shall submit a test report for tests of idling emissions meeting the specifications in Method 307 in Appendix A of 40 CFR Part 63. This report shall comply with the requirements specified in 8.9.4.6.1 through 8.9.4.6.4 of this section.

8.9.4.6.1 This test must be on the same specific model cleaner used at the source. The test can be done by the owner or operator of the affected machine or can be supplied by the vendor of that solvent cleaning machine or a third party.

8.9.4.6.2 This report must clearly state the monitoring parameters, monitoring frequency and the delineation of exceedances for each parameter.

8.9.4.6.3 If a solvent cleaning machine vendor or third party test report is used to demonstrate compliance, it shall include the following for the solvent cleaning machine tested: Name of person or persons or company that performed the test, model name, the date the solvent cleaning machine was tested, serial number, and a diagram of the solvent cleaning machine tested.

8.9.4.6.4 If a solvent cleaning machine vendor or third party test report is used, the owner or operator of the solvent cleaning machine shall comply with the requirements specified in 8.9.4.6.4.1 and 8.9.4.6.4.2 of this section.

8.9.4.6.4.1 Submit a statement by the solvent cleaning machine vendor that the ~~unit~~ solvent cleaning machine tested is the same as the ~~unit~~ solvent cleaning machine the report is

being submitted for.

8.9.4.6.4.2 Demonstrate to the Department's satisfaction that the solvent emissions from the solvent cleaning machine for which the test report is being submitted are equal to or less than the solvent emissions from the solvent cleaning machine in the vendor test report.

8.9.4.7 If a carbon adsorber is used to comply with these standards, the date and results of the daily measurement of the halogenated HAP solvent concentration in the carbon adsorber exhaust required in 8.7.5 of this section.

8.9.5 Each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the provisions of 8.5 of this section shall submit to the Department an initial statement of compliance for each solvent cleaning machine. For existing sources, this report shall be submitted to the Department no later than November 11, 2001. For new sources, this report shall be submitted to the Department no later than 150 days after startup or November 11, 2001, whichever is later. The statement shall include the information specified in 8.9.5.1 through 8.9.5.4 of this section.

8.9.5.1 The name and address of the ~~solvent cleaning machine~~ owner or operator.

8.9.5.2 The address (i.e., physical location) of the solvent cleaning machine or machines.

8.9.5.3 The solvent/air interface area for each solvent cleaning machine or, for cleaning machines without a solvent/air interface, a description of the method used to determine the cleaning capacity and the results.

8.9.5.4 The results of the first 3-month average emissions calculation.

8.9.6 Each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the provisions of 8.4 of this section shall submit an annual report by February 1 of the year following the one for which the reporting is being made. This report shall include the requirements specified in 8.9.6.1 through 8.9.6.3 of this section.

8.9.6.1 A signed statement from the facility owner or his designee stating that, “All operators of solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test required in 8.4.4.10 of this section.”

8.9.6.2 An estimate of solvent consumption for each solvent cleaning machine during the reporting period.

8.9.6.3 The reports required ~~under~~ in 8.9.6 and 8.9.7 of this section can be combined into a single report for each facility.

8.9.7 Each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the provisions of 8.5 of this section shall submit a solvent emission report every year. This solvent emission report shall contain the requirements specified in 8.9.7.1 through 8.9.7.4 of this section.

8.9.7.1 The size and type of each ~~unit~~ solvent cleaning machine subject to Section 8.0 of this regulation (solvent/air interface area or cleaning capacity).

8.9.7.2 The average monthly solvent consumption for the solvent cleaning machine in kilograms per month.

8.9.7.3 The 3-month monthly rolling average solvent emission estimates calculated each month using the method as described in 8.6.3 of this section.

8.9.7.4 The reports required ~~under~~ in 8.9.6 and 8.9.7 of this section can be combined into a single report for each facility.

8.9.8 Each owner or operator of a batch vapor or in-line solvent cleaning machine shall submit an exceedance report to the Department semiannually except when, the Department determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source or, an exceedance occurs. Once an exceedance has occurred, the owner or operator shall follow a quarterly reporting format until a request to reduce reporting frequency under 8.9.9 of this section is approved. Exceedance reports shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. The exceedance report shall include the applicable information in 8.9.8.1 through 8.9.8.3 of this section.

8.9.8.1 Information on the actions taken to comply with 8.4.5 and 8.4.6 of this section. This information shall include records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.

8.9.8.2 If an exceedance has occurred, the reason for the exceedance and a description of the actions taken.

8.9.8.3 If no exceedances of a parameter have occurred, or a piece of equipment has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

8.9.9 An owner or operator who is required to submit an exceedance report on a quarterly (or more frequent) basis may reduce the frequency of reporting to semiannual if the conditions in 8.9.9.1 through 8.9.9.3 of this section are met.

8.9.9.1 The source has demonstrated a full year of compliance without an exceedance.

8.9.9.2 The owner or operator continues to comply with all relevant recordkeeping and monitoring requirements specified in 8.7 and 8.8 of this section and in subpart A ~~(General Provisions)~~ of this regulation.

8.9.9.3 The Department does not object to a reduced frequency of reporting for the affected source as provided in Sec. 63.10(e)(3)(iii) of subpart A of this regulation.

8.9.10 [Reserved] ~~The owner or operator of any batch cold solvent cleaning machine that is not a major source and is not located at a major source, as defined in Regulation 30 of State of Delaware "Regulations Governing the Control of Air Pollution", is exempt from title V permitting requirements in Regulation 30 for that source, provided the owner or operator is not otherwise required to obtain a title V permit. The owner or operator of any other solvent cleaning machine subject to the provisions of this subpart is also subject to title V permitting requirements. These sources are deferred from title V permitting requirements until December 9, 2004, if the source is not a major source and is not located at a major source, as defined in Regulation 30, 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. All sources receiving a deferral from title V permitting requirements shall comply with the provisions of this subpart applicable to area sources.~~

8.9.11 Each owner or operator of a solvent cleaning machine requesting an equivalency determination, as described in 8.10 of this section shall submit an equivalency request report to the Administrator (with copy to the Department). For existing sources, this report must be submitted to and approved by the Administrator no later than November 11, 2001. For new sources, this report must be submitted to and approved by the Administrator prior to startup or November 11, 2001, whichever is later.

5 DE Reg. 1118 (11/01/01)

8.10 Equivalent methods of control.

Upon written application to the Administrator (with copy to the Department), the Administrator may approve the use of equipment or procedures after they have been satisfactorily demonstrated to be equivalent, in terms of reducing emissions of methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform to the atmosphere, to those prescribed for compliance within a specified paragraph of Section 8.0 of this regulation. The application must contain a complete description of the equipment or procedure and the proposed equivalency testing procedure and the date, time, and location scheduled for the equivalency demonstration.

5 DE Reg. 1118 (11/01/01)

8.11 [Reserved]

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Table 1 of Section 8.0 of Regulation 1138 - Subpart A ~~(General Provisions)~~ of this Regulation Applicability to Section 8.0

General Provisions Reference	Applies to Section 8.0		Comments
	BCC	BVI	
63.1(a)(1)-(3)	Yes	Yes	
63.1(a)(4)	Yes	Yes	Table 1 of Section 8.0 specifies applicability of each paragraph in subpart A to Section 8.0.
63.1(a)(5)	No	No	
63.1(a)(6)~~-(8)~~	Yes	Yes	
63.1(a)(7)-(9)	No	No	
63.1(a)(10)	Yes	Yes	

63.1(a)(11)	No	No	Section 8.0 allows submittal of notifications and reports through the U.S. mail, fax, and courier. Section 8.0 requires that the postmark for notifications and reports submitted through the U.S. mail or other non-Governmental mail carriers be on or before deadline specified in an applicable requirement.
63.1(a)(12)-(14)	Yes	Yes	
63.1(b)(1)	No	No	Section 8.0 specifies applicability.
63.1(b)(2)	~~Yes~~ No	~~Yes~~ No	~~However, subpart T exempts certain BCC from Regulation 30 permitting requirements.~~
63.1(b)(3)	Yes	Yes	
63.1(c)(1)	Yes	Yes	
63.1(c)(2)	Yes	Yes	8.1.8 exempts area sources subject to Section 8.0 from the obligation to obtain a Title V operating permit. ~~Subpart T, Sec. 63.468(j) indicates a title V permit exemption for halogenated HAP batch cold solvent cleaning machines that are not major sources and are not located at a major source, as defined in Regulation 30, and are not otherwise required to obtain a title V permit. This section also specifies a deferral from the requirement of a title V permit for owners or operators of solvent cleaning machines subject to subpart T provisions that are not major sources and are not located at a major source, as defined in Regulation 30, and are not otherwise required to obtain a title V permit.~~
63.1(c)(3)	No	No	
63.1(c)(4)	~~Yes~~ No	~~Yes~~ No	
63.1(c)(5)	Yes	Yes	Section 8.0 does not require continuous monitoring systems (CMS) or continuous opacity monitoring systems (COMS). Therefore, notifications and requirements for CMS and COMS specified in subpart A do not apply to Section 8.0.
63.1(d)	No	No	
63.1(e)	Yes	Yes	
63.2	Yes	Yes	Section 8.0 definitions (8.2) for existing and new overlap with the definitions for existing source and new source in subpart A (Sec. 63.2). Both subpart A and Section 8.0 also define Administrator.
63.3(a)-(c)	Yes	Yes	
63.4(a)(1)-(2 ~~3~~)	Yes	Yes	
63.4(a)(3)-(5 ~~4~~)	No	No	
63.4(a)(5)	Yes	Yes	
63.4(b)-(c)	Yes	Yes	
63.5(a)(1)	Yes	Yes	
63.5(a)(2)	Yes	Yes	
63.5(b)(1)	Yes	Yes	
63.5(b)(2)	No	No	
63.5(b)(3)	Yes	Yes	
63.5(b)(3)-(4 ~~6~~)	Yes	Yes	
63.5(b)(5)	No	No	

63.5(b)(6)	Yes	Yes	
63.5(c)	~~Yes~~ No	~~Yes~~ No	
63.5 (d)-(d)(1)(ii)(F ~~f~~)	Yes	Yes	
63.5(d)(1)(ii)(G)	No	No	
63.5(d)(1)(ii)(H)	Yes	Yes	
63.5(d)(1)(ii)(I)	No	No	
63.5(d)(1)(ii)(J)-(f)	Yes	Yes	
63.6(a)	Yes	Yes	
63.6(b)(1)-(5)	Yes	Yes	8.1 specifies compliance dates.
63.6(b)(6)	No	No	
63.6(b)(7)	No	No	Section 8.0 has the same requirements for affected halogenated HAP solvent cleaning machine subcategories that are located at area sources as it does for those located at major sources
63.6(c)(1)-(2)	Yes	Yes	
63.6(c)(3)-(4)	No	No	
63.6(c)(5)	Yes	Yes	Section 8.0 has the same requirements for affected halogenated HAP solvent cleaning machine subcategories that are located at area sources as it does for those located at major sources.
63.6(d)	No	No	
63.6(e)(1) ~~(2)~~	Yes	Yes	
63.6(e)(2)	No	No	
63.6(e)(3)	No	No	Section 8.0 overrides the requirement of a startup, shutdown, and malfunction plan. Section 8.0 specifies startup and shutdown procedures to be followed by an owner or operator for batch vapor and in-line cleaning machines.
63.6(f)-(g)	Yes	Yes	
63.6(h)	No	No	Section 8.0 does not require compliance with an opacity or visible emission standard.
63.6(i)(1)-(14)	Yes	Yes	
63.6(i)(15)	No	No	
63.6(i)(16)	Yes	Yes	
63.6(j)	Yes	Yes	
63.7(a)-(a)(2)	No	Yes	Section 8.0 gives owners or operators the option to perform an idling emission performance test as a way of demonstrating compliance. Other options are also available that do not require a performance test.
63.7(a)(2)(i)-(a)(2)(viii)	No	No	
63.7(a)(2)(ix)-(a)(3)	No	Yes	
63.7(b)	No	Yes	This is only required for those owners or operators that choose the idling emission standard as their compliance option.
63.7(c)(1)	No	Yes	This is only required for those owners or operators that choose the idling emission standard as their compliance option.
63.7(c)(2)-(3)	No	No	Section 8.0 does not require a site-specific test plan for the idling emission performance test.

63.7(c)(4)	No	No	Section 8.0 does not require a performance test that involves the retrieval of gas samples, and therefore this does not apply.
63.7(d)	No	No	Requirements do not apply to the idling emission performance test option.
63.7(e)	No	Yes	
63.7(f)	No	Yes	

63.7(g)-(g)(1)	No	Yes	Section 8.0 specifies what is required to demonstrate idling emission standard compliance through the use of Method 307 in Appendix A of 40 CFR Part 63 and control device monitoring. Reports and records of testing and monitoring are required for compliance verification. Three runs of the test are required for compliance, as specified in Sec. 63.7(e) of subpart A.
63.7(g)(2)	No	No	
63.7(g)(3)	No	Yes	
63.7(h)	No	No	Section 8.0 does not require the use of a performance test to comply with the standard. The idling emission standard option (which requires an idling emission performance test) is an alternative option offered to owners or operators of batch vapor and in-line cleaning machines for compliance flexibility.
63.8(a)(1)-(2 ~~b~~)	Yes	Yes	
63.8(a)(3)	No	No	
63.8(a)(4)-(b)	Yes	Yes	
63.8 (c)-(e)	No	No	Section 8.0 does not require the use of continuous monitoring systems to demonstrate compliance.
63.8(f)	Yes	Yes	
63.8(g)	No	No	Section 8.0 does not require continuous opacity monitoring systems and continuous monitoring systems data.
63.9(a)(1)-(4)	Yes	Yes	
63.9(b)(1)	Yes	Yes	
63.9(b)(2)	Yes	Yes	Section 8.0 includes all of those requirements stated in subpart A, except that subpart A also requires a statement as to whether the affected source is a major or an area source, and an identification of the relevant standard (including the source's compliance date). Section 8.0 also has some more specific information requirements specific to the affected source (see 8.9.1 and 8.9.2).
63.9(b)(3)	~~Yes~~ No	~~Yes~~ No	~~The subpart A and subpart T initial notification reports differ (see above).~~
63.9(b)(4)-(b)(4)(i)	Yes	Yes	
63.9(b)(4)(ii-iv)	No	No	
63.9(b)(4)(v)	Yes	Yes	
63.9(b)(5)	Yes	Yes	

63.9(c)	Yes	Yes	
63.9(d)	Yes	Yes	

63.9(e)	Yes	Yes	Under Section 8.0, this requirement only applies to owners or operators choosing to comply with the idling emissions standard.
63.9(f)	No	No	Section 8.0 does not require opacity or visible emission observations.
63.9(g)	No	No	Section 8.0 does not require the use of continuous monitoring systems or continuous opacity monitoring systems.
63.9(h)	No	No	8.9 requires an initial statement of compliance for existing sources to be submitted to the Department no later than November 11, 2001. For new sources, this report is to be submitted to the Department no later than 150 days after startup or November 11, 2001, whichever is later.
63.9(i)	Yes	Yes	
63.9(j)	Yes	Yes	
63.10(a)	Yes	Yes	
63.10(b)(1)-(2)	No	No	Recordkeeping requirements are specified in Section 8.0.
63.10(b)(3)	Yes	Yes	
63.10(c)(1)-(15)	No	No	Section 8.0 does not require continuous monitoring systems.
63.10(d)(1)	Yes	Yes	
63.10(d)(2)-(5)	No	No	Reporting requirements are specified in Section 8.0.
63.10(e)(l)-(2)	No	No	Section 8.0 does not require continuous emissions monitoring systems.
63.10(e)(3)	No	No	Section 8.0 does not require continuous monitoring systems.
63.10(e)(4)	No	No	Section 8.0 does not require continuous opacity monitoring systems.
63.10(f)	Yes	Yes	
63.11(a)	Yes	Yes	
63.11(b)	No	No	Flares are not a control option under Section 8.0
63.12 (a)-(c)	Yes	Yes	
63.13 (a)-(c)	Yes	Yes	
63.14	No	No	Section 8.0 requirements do not require the use of the test methods incorporated by reference in subpart A.
63.15(a)-(b)	Yes	Yes	

BCC = Batch Cold Cleaning Machines.
BVI = Batch Vapor and In-line Cleaning Machines.

5 DE Reg. 1118 (11/1/01)

Appendix A to Section 8.0 <u>of Regulation 1138</u> -- Test of Solvent Cleaning Procedures

GENERAL QUESTIONS

1. What is the maximum allowable speed for parts entry and removal?
   A. 8.5 meters per minute (28 feet per minute)
   B. 3.4 meters per minute (11 feet per minute)
   C. 11 meters per minute (36 feet per minute)
   D. No limit

2. How do you ensure that parts enter and exit the solvent cleaning machine at the speed required in the

regulation?

A. Program on computerized hoist monitors speed
B. Can judge the speed by looking at it
C. Measure the time it takes the parts to travel a measured distance

3. Identify the sources of air disturbances.
   A. Fans
   B. Open doors
   C. Open windows
   D. Ventilation vents
   E. All of the above

4. What are the three operating modes?
   A. Idling, working and downtime
   B. Precleaning, cleaning, and drying
   C. Startup, shutdown, off
   D. None of the above

5. When can parts or parts baskets be removed from the solvent cleaning machine?
   A. When they are clean
   B. At any time
   C. When dripping stops
   D. Either A or C is correct

6. How must parts be oriented during cleaning?
   A. It does not matter as long as they fit in the parts basket
   B. So that the solvent pools in the cavities where the dirt is concentrated
   C. So that solvent drains from them freely

7. During startup, what must be turned on first, the primary condenser or the sump heater?
   A. Primary condenser
   B. Sump heater
   C. Turn both on at same time
   D. Either A or B is correct

8. During shutdown, what must be turned off first, the primary condenser or the sump heater?
   A. Primary condenser
   B. Sump heater
   C. Turn both off at same time
   D. Either A or B is correct

9. In what manner must solvent be added to and removed from the solvent cleaning machine?
   A. With leak proof couplings
   B. With the discharge end of the pipe below the liquid solvent surface
   C. So long as the solvent does not spill, the method does not matter
   D. A and B

10. What must be done with waste solvent and still and sump bottoms?
    A. Pour down the drain
    B. Store in closed container
    C. Store in a bucket
    D. A or B

11. What types of materials are prohibited from being cleaned in solvent cleaning machines using halogenated

~~HAP~~ hazardous air pollutant solvents?

A. Sponges
B. Fabrics
C. Paper
D. All of the above

CONTROL DEVICE SPECIFIC QUESTIONS

Freeboard Refrigeration Device (FRD)

1. What temperature must the FRD achieve?
   A. Below room temperature
   B. 50 deg. F
   C. Below the solvent boiling point
   D. 30 percent below the solvent boiling point

Working-Mode Cover

2. When can a cover be open?
   A. While parts are in the cleaning machine
   B. During parts entry and removal
   C. During maintenance
   D. During measurements for compliance purposes
   E. A and C
   F. B, C, and D

3. Covers must be maintained in what condition?
   A. Free of holes
   B. Free of cracks
   C. So that they completely seal cleaner opening
   D. All of the above

Dwell

4. Where must the parts be held for the appropriate dwell time?
   A. In the vapor zone
   B. In the freeboard area above the vapor zone
   C. Above the cleaning machine
   D. In the immersion sump

ANSWERS

General Questions

1. B
2. A or C
3. E
4. A
5. C
6. C
7. A
8. B
9. D
10. B

11. D

Control Device Specific Questions

1. D
2. F
3. D
4. B

5 DE Reg. 1118 (11/1/01)

Sections 9.0 through 11.0 [Reserved]

~~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)

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)

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)

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" or **"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" or **"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.

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12.5 [Reserved]

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 (3.5×10^{-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 (7.0×10^{-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 and

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) and

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:

~~$Lc_{HCl} = [3(Lti_{HCl} \times Tti)] / [3(Tti)]$ (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:

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

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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; and

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 and

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 and

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 and

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; and

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 and

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 (06/01/03)

12.8 through 12.10 [Reserved]

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 the requirements in 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:

12.1.20.1 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 (06/01/03)

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 (06/01/03)

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:

$W_t = F_1 * W_1 + F_2 * W_2$ (~~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.

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12.14 Equations for determining compliance.

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

$E = (C * MW * Q * K_1 * K_2) / (M_V * P * 10^6)$ (~~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.

~~$Ec_{PM} = [(Eti_{PM} x Tti)] / [(Tti)]$~~ (~~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.

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

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

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12.15 [Reserved]

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.

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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(c).~~ 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.

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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~~ in Sec. 63.10(c) of subpart A of this regulation.

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.

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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.

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12.20 and 12.21 [Reserved]

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	
~~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	
~~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.
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	
~~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	

~~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	
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	

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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	PM HCl THC D/F[a]	0.08 0.80 0.06 0.25	1b/ton of feed 1b/ton of feed 1b/ton of feed µg TEQ/Mg of feed
Or Alternative limits if afterburner has a design residence time of at least 1 second and operates at a temperature of at least 760 deg.C (1400 ~~o~~ deg.F)	PM HCl THC D/F[a]	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
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

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 <u>Work practice:</u> clean charge only

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.

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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.

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 plus 14 ~~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]

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.

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.

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.

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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.

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.

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.

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.

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.

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 (06/01/03)

10 DE Reg. 1787 (06/01/07) (Prop.)