West Virginia Department of Environmental Protection
Division of Air Quality

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

Permit to Modify

R13-2376D

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45 C.S.R. 13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

Constellium Rolled Products Ravenswood, LLC
Ravenswood Facility
035-00043

William F. Durham
Director

Issued: July 31, 2015

This permit will supercede and replace Permit R13-2376C.

Facility Location:	Ravenswood, Jackson County, West Virginia
Mailing Address:	PO Box 68 Ravenswood, WV 26164
Facility Description:	Secondary Aluminum Operation
NAICS Codes:	331312, 331315, 332811
UTM Coordinates:	428.23 km Easting • 4,309.4 km Northing • Zone 17
Permit Type:	Modification
Description of Change:	Installation of an Ingot Pusher Furnace.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

The source is subject to 45CSR30. Changes authorized by this permit must also be incorporated into the facility's Title V operating permit. Commencement of the operations authorized by this permit shall be determined by the appropriate timing limitations associated with Title V permit revisions per 45CSR30.

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1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Design Capacity	Control Device
005P139	005S139	DC Melting Furnace DC-10A	70 mmbtu/hr	N
005P140	005S140	DC Melting Furnace DC-10B	70 mmbtu/hr	N
005P141	005S141	DC Holding Furnace 10	14 mmbtu/hr	BH
005P142	005S142	Rotary Furnace	12 mmbtu/hr	BH
006P120	006S120	Preheat Furnace	40 mmbtu/hr	N
008P110	008S110	Heat-Treat Furnace	19.44 mmbtu/hr	N
008P111	008S111	Aging Furnace	7.68 mmbtu/hr	N
006P102	006S102	Ingot Pusher Furnace	95 mmbtu/hr max. 55 mmbtu/hr permitted	N

2.0. General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45 CSR § 30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	**NO_x**	Nitrogen Oxides
CBI	Confidential Business Information	**NSPS**	New Source Performance Standards
CEM	Continuous Emission Monitor	**PM**	Particulate Matter
CES	Certified Emission Statement	**$PM_{2.5}$**	Particulate Matter less than 2.5μm in diameter
C.F.R. *or* CFR	Code of Federal Regulations	**PM_{10}**	Particulate Matter less than 10μm in diameter
CO	Carbon Monoxide	**Ppb**	Pounds per Batch
C.S.R. *or* CSR	Codes of State Rules	**pph**	Pounds per Hour
DAQ	Division of Air Quality	**ppm**	Parts per Million
DEP	Department of Environmental Protection	**Ppmv or ppmv**	Parts per million by volume
dscm	Dry Standard Cubic Meter	**PSD**	Prevention of Significant Deterioration
FOIA	Freedom of Information Act	**psi**	Pounds per Square Inch
HAP	Hazardous Air Pollutant	**SIC**	Standard Industrial Classification
HON	Hazardous Organic NESHAP	**SIP**	State Implementation Plan
HP	Horsepower	**SO_2**	Sulfur Dioxide
lbs/hr	Pounds per Hour	**TAP**	Toxic Air Pollutant
LDAR	Leak Detection and Repair	**TPY**	Tons per Year
M	Thousand	**TRS**	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	**TSP**	Total Suspended Particulate
MDHI	Maximum Design Heat Input	**USEPA**	United States Environmental Protection Agency
MM	Million	**UTM**	Universal Transverse Mercator
MMBtu/hr *or* mmbtu/hr	Million British Thermal Units per Hour	**VEE**	Visual Emissions Evaluation
MMCF/hr *or* mmcf/hr	Million Cubic Feet per Hour	**VOC**	Volatile Organic Compounds
NA	Not Applicable	**VOL**	Volatile Organic Liquids
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Law W.Va. Code §§22-5-1 et seq. and the following Legislative Rules promulgated thereunder:

2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation;*

2.4. Term and Renewal

2.4.1. This permit supercedes and replaces previously issued Permit R13-2376C. This permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any applicable legislative rule.

2.5. Duty to Comply

2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-2376, R13-2376A, R13-2376B, R13-2376C and R13-2376D and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;
[45CSR§§13-5.11 and 13-10.3]

2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;

2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;

2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses and/or approvals from other agencies; i.e., local, state and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10. Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§13-5.1]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. Emergency

2.12.1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission

limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are met.

2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The permitted facility was at the time being properly operated;

c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and,

d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

2.12.5. The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. **[45CSR§13-10.1]**

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40CFR§61.145(b) and 45CSR§34]

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]

3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]

3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45 C.S.R. 11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

[Reserved]

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in

this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language;
2. The result of the test for each permit or rule condition; and,
3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§4. *State-Enforceable only.*]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:	**If to the USEPA:**
Director WVDEP Division of Air Quality 601 57th Street, SE Charleston, WV 25304-2345	Associate Director Office of Air Enforcement and Compliance Assistance (3AP20) U. S. Environmental Protection Agency Region III 1650 Arch Street Philadelphia, PA 19103-2029

3.5.4. **Operating Fee.**

3.5.4.1. In accordance with 45CSR30 – Operating Permit Program, the permittee shall submit a Certified Emissions Statement (CES) and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. Emissions from the portion of the facility covered under this permit shall not exceed the following:

Hourly Emissions (lb/hr)

Source	PM	PM_{10}	CO	NO_x	SO_2	VOCs	HCl
005P139	3.12	1.53	4.90	5.60	0.04	0.38	35.43[(1)]
005P140	3.12	1.53	4.90	5.60	0.04	0.38	
005P141	0.19	0.19	1.12	0.70	0.01	0.08	
005P142	1.27	1.27	0.99	0.88	0.01	0.01	
006P120	0.30	0.30	3.29	3.80	0.02	0.22	--
008P110	0.14	0.14	1.60	1.95	0.01	0.10	--
008P111	0.06	0.06	0.63	0.77	0.01	0.04	--
006P102	0.41	0.41	4.0	6.0	0.03	0.30	--
Total	**8.61**	**5.43**	**21.43**	**25.3**	**0.17**	**1.51**	**35.43**

[(1)]Based upon SAPU limit of 0.40 lb HCl/ton Al Charged pursuant to Subpart RRR.

Annual Emissions (tons per year)[(2)]

Source	PM	PM_{10}	CO	NO_x	SO_2	VOCs	HCl
005P139	9.53	4.67	13.19	15.17	0.12	1.02	108.33
005P140	9.53	4.67	13.19	15.17	0.12	1.02	
005P141	0.57	0.57	3.14	1.96	0.02	0.21	
005P142	3.71	3.71	4.33	2.52	0.03	0.28	
006P120	0.16	0.16	1.76	2.04	0.01	0.12	--
008P110	0.15	0.15	1.71	2.08	0.01	0.11	--
008P111	0.03	0.03	0.37	0.45	0.01	0.02	--
006P102	1.63	1.63	16.51	25.01	0.13	1.18	--
Total	**25.31**	**15.59**	**54.2**	**64.4**	**0.45**	**3.96**	**108.33**

[(1)]Based upon SAPU limit of 0.40 lb HCl/ton Al Charged pursuant to Subpart RRR.
[(2)]Based on a rolling 12 month total.

4.1.2 In accordance with the information filed in Permit Application R13-2376, and any amendments or revisions thereto, the DC Melting Furnaces (Source Identification Numbers 005P139 and 005P140) shall be equipped with regenerative low-NOx burners. The remainder of the listed sources under 4.1.1 shall be equipped with standard low-NOx burners.

4.1.3 In accordance with the information filed in Permit Application R13-2376, and any amendments or revisions thereto, a Permanent Total Enclosure shall be installed, maintained, and operated so as to provide for capture of fugitive particulate matter emitted from the Rotary Furnace (Source Identification Number 005P142). Fugitive particulate matter captured by the Permanent Total Enclosure shall be vented to baghouse 005C108. The enclosure shall be installed, maintained, and operated so as to meet the criteria of a Permanent Total Enclosure in accordance with EPA Method 204 as set forth in 40 CFR 51, Appendix M.

4.1.4 In accordance with the information filed in Permit Application R13-2376, and any amendments or revisions thereto, a lime-injected baghouse (Source Identification Number 005C105) shall be installed, maintained, and operated so as to achieve a minimum 99.00% control efficiency in the control of Particulate Matter emissions and a 95.00% control efficiency in the control of Hydrochloric Acid (HCl) emissions from the DC Holding Furnace 10, identified as 005P141. The permittee shall operate and monitor said baghouse according to all applicable terms and conditions as set forth in 40 CFR 63, Subpart RRR.

4.1.5 In accordance with the information filed in Permit Application R13-2376, and any amendments or revisions thereto, a lime-injected baghouse (Source Identification Number 005C108) shall be installed, maintained, and operated so as to achieve a minimum 99.00% control efficiency in the control of Particulate Matter emissions and a 95.00% control efficiency in the control of HCl emissions from the Rotary Furnace, identified as 005P142. The permittee shall operate and monitor said baghouse according to all applicable terms and conditions as set forth in 40 CFR 63, Subpart RRR.

4.1.6 The annual consumption of natural gas shall not exceed the limits as specified in the following table. Compliance with the annual natural gas consumption limits shall be determined using rolling yearly totals. A rolling yearly total shall mean the sum of the natural gas consumed at any given time for the previous twelve (12) consecutive months.

Source ID	Source Description	Natural Gas Consumed (ft^3)
005P139, 005P140	DC-10 Melting Furnaces	743,500,000[1]
005P141	DC Holding Furnace 10	76,862,746
005P142	Rotary Furnace	67,331,764
006P120	Preheat Furnace	42,000,000
008P110	Heat-Treat Furnace	40,600,000
008P111	Aging Furnace	8,800,000
006P102	Ingot Pusher Furnace	428,678,363

(1) Aggregate total of both melting furnaces.

4.1.7 The average hourly throughput of aluminum charge through Direct Chill Complex Number 10 shall not exceed 41.67 tons and the annual throughput of aluminum charge shall not exceed 255,500 tons. Compliance with the annual aluminum charge throughput limit shall be determined using a rolling yearly total. For the purposes of this permit, "average hourly throughput" shall mean the daily throughput divided by the hours of operation for that day. The daily throughput shall be the sum of aluminum charged during the previous 24 hours from the shift change nearest to midnight.

4.1.8 The average hourly throughput of aluminum charge through the Rotary Furnace shall not exceed 5.25 tons and the annual throughput of aluminum charge shall not exceed 30,660 tons. Compliance with the annual aluminum charge throughput limit shall be determined using a rolling yearly total.

4.1.9 The average emission rate of TSP and PM10 from the specified equipment, in pounds of pollutant per ton of feed/charge (lb/ton), and as measured over one batch cycle, shall not exceed the following:

Source ID	Source Description	Stack ID	TSP Limit[1] (lb/ton)	PM_{10} Limit[1] (lb/ton)
005P139	DC Melting Furnace DC-10A	005S127	0.1500	0.0735
005P140	DC Melting Furnace DC-10B	005S128	0.1500	0.0735
005P141	DC Holding Furnace 10	005S126	0.0045	0.0045
005P142	Rotary Furnace	005S129	0.2422	0.2422

(1) As measured downstream from any particulate control devices.

4.1.10 The emission rate of NOx from the specified equipment, in pounds of pollutant per MMBtu of heat input (lb/MMBtu), shall not exceed the following:

Source ID	Source Description	Stack ID	NO_x Limit (lb/MMBtu)
005P139	DC Melting Furnace DC-10A	005S127	0.080
005P140	DC Melting Furnace DC-10B	005S128	0.080
005P141	DC Holding Furnace 10	005S126	0.050
005P142	Rotary Furnace	005S129	0.075
006P120	Preheat Furnace	006S128	0.097
008P110	Heat-Treat Furnace	008S108	0.100
008P111	Aging Furnace	n/a	0.100

4.1.11 Pursuant to 40 CFR 63, Subpart RRR, §63.1505.k(2) and §63.1510.t(4), the 3-day, 24-hour rolling average emission rate of HCl from DC Melting Furnaces DC-10A and DC-10B, DC Holding Furnace 10, and the Rotary Furnace, the combination of which are defined under Subpart RRR as a Secondary Aluminum Processing Unit (SAPU), shall not exceed 0.40 pound of HCl per ton of feed/charge.

4.1.12 In addition to the SAPU limit contained under 4.1.11, the emission rate of HCl from the specified equipment, in pounds of pollutant per ton of feed/charge (lb/ton), shall not exceed the following:

Source ID	Source Description	Stack ID	HCl Limit[1] (lb/ton)
005P139	DC Melting Furnace DC-10A	005S127	0.72
005P140	DC Melting Furnace DC-10B	005S128	0.72
005P141	DC Holding Furnace 10	005S126	0.095
005P142	Rotary Furnace	005S129	0.45

[1] As measured downstream from any particulate control devices.

4.1.13 No person shall cause, suffer, allow, or permit emissions of smoke and/or particulate matter into the open air form any process source operation greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR§7-3.1.]

4.1.14 The provisions of subsection 3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
[45CSR§7-3.2.]

4.1.15 No person shall cause, suffer, allow, or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of this rule.
[45CSR§7-4.1.]

4.1.16 Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity given in Table 45-7B found at the end of this rule.
[45CSR§7-4.2.]

4.1.17 No person shall cause, suffer, allow or permit the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e.
[45CSR§10-4.1.]

4.1.18 No person shall cause, suffer, allow or permit the combustion of any refinery process gas stream or any other process gas stream that contains hydrogen sulfide in a concentration greater than 50 grains per 100 cubic feet of gas except in the case of a person operating in compliance with an emission control and mitigation plan approved by the Director and U. S. EPA. In certain cases very small units may be considered exempt from this requirement if, in the opinion of the Director, compliance would be economically unreasonable and if the contribution of the unit to the surrounding air quality could be considered negligible.
[45CSR§10-4.2.]

4.1.19 Group 1 furnace. The owner or operator of a group 1 furnace must use the limits in this paragraph to determine the emission standards for a SAPU.

4.1.19.1 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;
[§63.1505.i(1)]

4.1.19.2 15 µg of D/F TEQ per Mg (2.1 x 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
[§63.1505.i(3)]

4.1.19.3 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.
[§63.1505.i(4)]

4.1.20 Secondary aluminum processing unit. On and after the date of approval of the operation, maintenance and monitoring (OM&M) plan, the owner or operator must comply with the emission limits calculated using the equations for PM and HCl in paragraphs (k)(1) and (k)(2) of this section for each secondary aluminum processing unit at a secondary aluminum production facility that is a major source. The owner or operator must comply with the emission limit calculated using the equation for D/F in paragraph (k)(3) of this section for each secondary aluminum processing unit at a secondary aluminum production facility that is a major or area source.
[§63.1505(k)]

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

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

Where,

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

T_{ti} = The feed/charge rate for individual emission unit I; and

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

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

[§63.1505(k)(1)]

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

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

Where,

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

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

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

[§63.1505(k)(2)]

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

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

Where,

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

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

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

[§63.1505(k)(3)]

4.1.20.4 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 of paragraphs (k)(1) through (3) of this section by demonstrating that each emission unit within the SAPU is in compliance with the applicable emission limits of paragraphs (i) and (j) of this section.
[§63.1505(k)(4)]

4.1.21 Labeling. The owner or operator must provide and maintain easily visible labels posted at each 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:
[§63.1506(b)]

4.1.21.1 The type of affected source or emission unit (e.g., scrap dryer/delacquering kiln/decoating kiln, group 1 furnace, group 2 furnace, in-line fluxer).
[§63.1506.b(1)]

4.1.21.2 The applicable operational standard(s) and control method(s) (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 OM&M plan.
[§63.1506.b(2)]

4.1.21.3 The afterburner operating temperature and design residence time for a scrap dryer/delacquering kiln/decoating kiln.
[§63.1506.b(3)]

4.1.22 Capture/collection systems. For each affected source or emission unit equipped with an add-on air pollution control device, the owner or operator must:
[§63.1506(c)]

4.1.22.1 Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates as published by the American Conference of Governmental Industrial Hygienists in chapters 3 and 5 of "Industrial Ventilation: A Handbook of Recommended Practice" (incorporated by reference in §63.1502 of this subpart);
[§63.1506.c(1)]

4.1.22.2 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
[§63.1506.c(2)]

4.1.22.3 Operate each capture/collection system according to the procedures and requirements in the OM&M plan.
[§63.1506.c(3)]

4.1.23 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:
[§63.1506(m)]

4.1.23.1 If a bag leak detection system is used to meet the monitoring requirements in §63.1510, the owner or operator must:
[§63.15063.m(1)]

Initiate corrective action within 1 hour of a bag leak detection system alarm.
[§63.1506.m(1)(i)]

Complete the corrective action procedures in accordance with the OM&M plan.
[§63.1506.m(1)(ii)]

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.
[§63.1506.m(1)(iii)]

4.1.23.2 Maintain the 3-hour block average inlet temperature for each fabric filter at or below the average temperature established during the performance test, plus 14 C (plus 25 F).
[§63.1506.m(3)]

4.1.23.3 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.
[§63.1506.m(4)]

4.1.23.4 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.
[§63.1506.m(4)]

4.1.24 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:
[§63.1506(n)]

4.1.24.1 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.
[§63.1506.n(1)]

4.1.24.2 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.
[§63.1506.n(2)]

4.1.24.3 Operate each group 1 melting/holding furnace subject to the emission standards in §63.1505(i)(2) using only clean charge as the feedstock.
[§63.1506.n(3)]

4.1.25. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11.]

4.2. Testing Requirements

4.2.1. Pursuant to 40 CFR 63, Subpart RRR, §63.1511, the permittee shall conduct, or have conducted, performance tests to show compliance with applicable requirements contained therein. Tests required under Subpart RRR shall be conducted in accordance with all applicable requirements as specified therein.

4.2.2 Site-specific test plan. Prior to conducting a performance test required by this subpart, the owner or operator must prepare and submit a site-specific test plan meeting the requirements in §63.7(c).
[§63.1511(a)]

4.2.3 Initial performance test. Following approval of the site-specific test plan, the owner or operator must demonstrate initial compliance with each applicable emission, equipment, work practice, or operational standard for each affected source and emission unit, and report the results in the notification of compliance status report as described in §63.1515(b). The owner or operator must conduct each performance test according to the requirements of the general provisions in subpart A of this part and this subpart. Owners or operators of affected sources located at facilities which are area sources are subject only to those performance testing requirements pertaining to D/F. Owners or operators of sweat furnaces meeting the specifications of §63.1505(f)(1) are not required to conduct a performance test.
[§63.1511(b)]

4.2.3.1 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.
[§63.1511(b)(1)]

4.2.3.2 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.
[§63.1511(b)(2)]

4.2.3.3 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
[§63.1511(b)(3)]

4.2.3.4 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.
[§63.1511(b)(4)]

4.2.3.5 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.
[§63.1511(b)(5)]

4.2.4 Test methods. The owner or operator must use the following methods in appendix A to 40 CFR part 60 to determine compliance with the applicable emission limits or standards:

(1) Method 1 for sample and velocity traverses.
(2) Method 2 for velocity and volumetric flow rate.
(3) Method 3 for gas analysis.
(4) Method 4 for moisture content of the stack gas.
(5) Method 5 for the concentration of PM.
(6) Method 9 for visible emission observations.
(7) Method 23 for the concentration of D/F.
(8) Method 25A for the concentration of THC, as propane.
(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.
[§63.1511(c)]

4.2.5 Establishment of monitoring and operating parameter values. The owner or operator of new or existing affected sources and emission units must establish a minimum or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by §63.1510 that ensures compliance with the applicable emission limit or standard. To establish the minimum or maximum value or range, the owner or operator must use the appropriate procedures in this section and submit the information required by §63.1515(b)(4) in the notification of compliance status report. The owner or operator may use existing data in addition to the results of performance tests to establish operating parameter values for compliance monitoring provided each of the following conditions are met to the satisfaction of the applicable permitting authority:
[§63.1511(g)]

4.2.5.1 The complete emission test report(s) used as the basis of the parameter(s) is submitted.
[§63.1511(g)(1)]

4.2.5.2 The same test methods and procedures as required by this subpart were used in the test.
[§63.1511(g)(2)]

4.2.5.3 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.
[§63.1511(g)(3)]

4.2.5.4 All process and control equipment operating parameters required to be monitored were monitored as required in this subpart and documented in the test report.
[§63.1511(g)(4)]

4.2.6 Group 1 furnace with add-on air pollution control devices. (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).
[§63.1511(d)]

4.2.6.1 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.
[§63.1511(d)(3)]

4.2.7 Group 1 furnace (including melting holding furnaces) without add-on air pollution control devices. In the site-specific monitoring plan required by §63.1510(o), the owner or operator of a group 1 furnace (including a melting/holding furnaces) without add-on air pollution control devices must include data and information demonstrating compliance with the applicable emission limits.
[§63.1511(e)]

4.2.7.1 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.
[§63.1511(e)(1)]

4.2.7.2 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.
[§63.1511(e)(2)]

4.2.8 Secondary aluminum processing unit. The owner or operator must conduct performance tests as described in paragraphs (j)(1) through (3) of this section. The results of the performance tests are used to establish emission rates in lb/ton of feed/charge for PM 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 in §63.1510(t). A performance test is required for:
[§63.1512(j)]

4.2.8.1 Each group 1 furnace that processes scrap other than clean charge to measure emissions of PM and D/F and either:
[§63.1512(j)(2)]

Emissions of HCl (for the emission limit); or
[§63.1512(j)(2)(i)]

The mass flow rate of HCl at the inlet to and outlet from the control device (for the percent reduction standard).
[§63.1512(j)(2)(ii)]

4.2.9 Feed/charge weight measurement. During the emission test(s) conducted to determine compliance with emission limits in a kg/Mg (lb/ton) format, the owner or operator of an affected source or emission unit, subject to an emission limit in a kg/Mg (lb/ton) of feed/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.
[§63.1512(k)]

4.2.10 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.
[§63.1512(o)]

4.2.10.1 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;
[§63.1512(o)(1)]

4.2.10.2 Record the identity, composition, and total weight of each addition of solid reactive flux for the 3 test runs;
[§63.1512(o)(2)]

4.2.10.3 Determine the total reactive chlorine flux injection rate by adding the recorded measurement of the total weight of chlorine in the gaseous or liquid reactive flux injected and the total weight of chlorine in the solid reactive flux using Equation 5:

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

Where,

W_t = Total chlorine usage, by weight;
F_1 = Fraction of gaseous or liquid flux that is chlorine;
W_1 = Weight of reactive flux gas 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;

[§63.1512(o)(3)]

4.2.10.4 Divide the weight of total chlorine usage (Wt) for the 3 test runs by the recorded measurement of the total weight of feed for the 3 test runs; and
[§63.1512(o)(4)]

4.2.10.5 If a solid reactive flux other than magnesium chloride is used, the owner or operator must derive the appropriate proportion factor subject to approval by the applicable permitting authority.
[§63.1512(o)(5)]

4.2.11 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.
[§63.1512(p)]

4.2.11.1 For continuous lime injection systems, ensure that lime in the feed hopper or silo is free-flowing at all times; and
[§63.1512(p)(1)]

4.2.11.2 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.
[§63.1512(p)(2)]

4.3. Monitoring and Recordkeeping Requirements

4.3.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

f. The operating conditions existing at the time of sampling or measurement.

4.3.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

4.3.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

4.3.4. For the purposes of determining compliance with maximum charge/feed rates and natural gas combustion limits as set forth in 4.1.6, 4.1.7, and 4.1.8, the applicant shall maintain certified daily and monthly records of the following: the amount of natural gas consumed on a monthly basis by each affected source contained in 4.1.6 and the daily and average hourly charge/feed rates of DC-10 and the rotary furnace. Such records shall be retained by the permittee for at least five (5) years. Certified records shall be made available to the Director or his/her duly authorized representative upon request.

4.3.5 Feed/charge weight. The owner or operator of each affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) of feed/charge must:
[§63.1506(d)]

4.3.5.1 Except as provided in paragraph (d)(3) of this section, install and operate a device that measures and records or otherwise determine the weight of feed/charge (or throughput) for each operating cycle or time period used in the performance test; and
[§63.1506(d)(1)]

4.3.5.2 Operate each weight measurement system or other weight determination procedure in accordance with the OM&M plan.
[§63.1506(d)(2)]

4.3.5.3 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:
[§63.1506(d)(3)]

The aluminum production weight, rather than feed/charge weight is measured and recorded for all emission units within a SAPU; and
[§63.1506(d)(3)(i)]

All calculations to demonstrate compliance with the emission limits for SAPUs are based on aluminum production weight rather than feed/charge weight.
[§63.1506(d)(3)(ii)]

4.3.6 Summary. On and after the date the initial performance test is completed or required to be completed, whichever date is earlier, the owner or operator of a new or existing affected source or emission unit must monitor all control equipment and processes according to the requirements in this section. Monitoring requirements for each type of affected source and emission unit are summarized in Table 3 to this subpart.
[§63.1510(a)]

4.3.7 Labeling. The owner or operator must inspect the labels for each group 1 furnace, group 2 furnace, in-line fluxer 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 §63.1506(b) are intact and legible.
[§63.1510(c)]

4.3.8 Capture/collection system. The owner or operator must:
[§63.1510(d)]

4.3.8.1 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
[§63.1510(d)(1)]

4.3.8.2 Inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in §63.1506(c) and record the results of each inspection.
[§63.1510(d)(2)]

4.3.9 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 to determine the total weight of feed/charge or aluminum production to the affected source or emission unit.
[§63.1510(e)]

4.3.9.1 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 permitting agency 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.
[§63.1510(e)(1)]

4.3.9.2 The owner or operator must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.
[§63.1510(e)(2)]

4.3.10 Fabric filters and lime-injected fabric filters. The owner or operator of an affected source or emission unit using a fabric filter or lime-injected fabric filter to comply with the requirements of this subpart must install, calibrate, maintain, and continuously operate a bag leak detection system as required in paragraph (f)(1) of this section or a continuous opacity monitoring system as required in paragraph (f)(2) of this section. The owner or operator of an aluminum scrap shredder must install and operate a bag leak detection system as required in paragraph (f)(1) of this section, install and operate a continuous opacity monitoring system as required in paragraph (f)(2) of this section, or conduct visible emission observations as required in paragraph (f)(3) of this section.
[§63.1510(f)]

4.3.10.1 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.
[§63.1510(f)(1)]

The owner or operator must install and operate a bag leak detection system for each exhaust stack of a fabric filter.
[§63.1510(f)(1)(i)]

Each triboelectric bag leak detection system must be installed, calibrated, operated, and maintained according to the "Fabric Filter Bag Leak Detection Guidance," (September 1997). This document is available from the U.S. Environmental Protection Agency; Office of Air Quality Planning and Standards; Emissions, Monitoring and Analysis Division; Emission Measurement Center (MD-19), Research Triangle Park, NC 27711. This document also is available on the Technology Transfer Network (TTN) under Emission Measurement Technical Information (EMTIC), Continuous Emission Monitoring. Other bag leak detection systems must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.
[§63.1510(f)(1)(ii)]

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.
[§63.1510(f)(1)(iii)]

The bag leak detection system sensor must provide output of relative or absolute PM loadings.
[§63.1510(f)(1)(iv)]

The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.
[§63.1510(f)(1)(v)]

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.
[§63.1510(f)(1)(vi)]

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.
[§63.1510(f)(1)(vii)]

Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.
[§63.1510(f)(1)(viii)]

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.
[§63.1510(f)(1)(ix)]

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.
[§63.1510(f)(1)(x)]

4.3.11 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 this subpart.
[§63.1510(h)]

4.3.11.1 The owner or operator must install, calibrate, maintain, and operate a device to continuously monitor and record the temperature of the fabric filter inlet gases consistent with the requirements for continuous monitoring systems in subpart A of this part.
[§63.1510(h)(1)]

4.3.11.2 The temperature monitoring device must meet each of these performance and equipment specifications:
[§63.1510(h)(2)]

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.
[§63.1510(h)(2)(i)]

The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in §63.1512(n).
[§63.1510(h)(2)(ii)]

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.
[§63.1510(h)(2)(iii)]

4.3.12 Lime injection. These requirements apply to the owner or operator of an affected source or emission unit using a lime-injected fabric filter to comply with the requirements of this subpart.
[§63.1510(i)]

4.3.12.1 The owner or operator of a continuous lime injection system must verify that lime is always free-flowing by either:
[§63.1510(i)(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
[§63.1510(i)(1)(i)]

Subject to the approval of the permitting agency, 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
[§63.1510(i)(1)(ii)]

Subject to the approval of the permitting agency, 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.
[§63.1510(i)(1)(iii)]

4.3.12.2 The owner or operator of a continuous lime injection system must record the lime feeder setting once each day of operation.
[§63.1510(i)(2)]

4.3.12.3 An owner or operator who intermittently adds lime to a lime coated fabric filter must obtain approval from the permitting authority for a lime addition monitoring procedure. The permitting authority 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.
[§63.1510(i)(3)]

4.3.13 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:
[§63.1510(j)]

4.3.13.1 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.
[§63.1510(j)(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.
[§63.1510(j)(1)(i)]

The accuracy of the weight measurement device must be +1 percent of the weight of the reactive component of the flux being measured. The owner or operator may apply to the permitting authority for 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.
[§63.1510(j)(1)(ii)]

The owner or operator must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.
[§63.1510(j)(1)(iii)]

4.3.13.2 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 §63.1512(o).
[§63.1510(j)(2)]

4.3.13.3 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:
[§63.1510(j)(3)]

Gaseous or liquid reactive flux other than chlorine; and
[§63.1510(j)(3)(i)]

Solid reactive flux.
[§63.1510(j)(3)(ii)]

4.3.13.4 Calculate and record the total reactive flux injection rate for each operating cycle or time period used in the performance test using the procedure in §63.1512(o).
[§63.1510(j)(4)]

4.3.14 Scrap inspection program for group 1 furnace without add-on air pollution control devices. A scrap inspection program must include:
[§63.1510(p)]

4.3.14.1 A proven method for collecting representative samples and measuring the oil and coatings content of scrap samples;
[§63.1510(p)(1)]

4.3.14.2 A scrap inspector training program;
[§63.1510(p)(2)]

4.3.14.3 An established correlation between visual inspection and physical measurement of oil and coatings content of scrap samples;
[§63.1510(p)(3)]

4.3.14.4 Periodic physical measurements of oil and coatings content of randomly-selected scrap samples and comparison with visual inspection results;
[§63.1510(p)(4)]

4.3.14.5 A system for assuring that only acceptable scrap is charged to an affected group 1 furnace; and
[§63.1510(p)(5)]

4.3.14.6 Recordkeeping requirements to document conformance with plan requirements.
[§63.1510(p)(6)]

4.3.15 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:
[§63.1510(q)]

4.3.15.1 Procedures for the characterization and documentation of the contaminant level of the scrap prior to the performance test.
[§63.1510(q)(1)]

4.3.15.2 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.
[§63.1510(q)(2)]

4.3.15.3 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.
[§63.1510(q)(3)]

4.3.16 Secondary aluminum processing unit. Except as provided in paragraph (u) of this section, the owner or operator must calculate and record the 3-day, 24-hour rolling average emissions of PM, HCl, and D/F for each secondary aluminum processing unit on a daily basis. To calculate the 3-day, 24-hour rolling average, the owner or operator must:
[§63.1510(t)]

4.3.16.1 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 paragraph (e) 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.
[§63.1510(t)(1)]

4.3.16.2 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.
[§63.1510(t)(2)]

4.3.16.3 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.
[§63.1510(t)(3)]

4.3.16.4 Compute the 24-hour daily emission rate using Equation 4:
[§63.1510(t)(4)]

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

Where,

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

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

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

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

4.3.16.5 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.
[§63.1510(t)(5)]

4.3.17 Secondary aluminum processing unit compliance by individual emission unit demonstration. As an alternative to the procedures of paragraph (t) 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.
[§63.1510(u)]

4.4. Reporting Requirements

4.4.1. Bag leak detection system. The owner or operator of an affected source or emission unit using a bag leak detection system must submit the information described in §63.1515(b)(6) as part of the notification of compliance status report to document conformance with the specifications and requirements in §63.1510(f).
[§63.1512(q)]

4.4.2 Labeling. The owner or operator of each scrap dryer/delacquering kiln/decoating kiln, group 1 furnace, group 2 furnace and in-line fluxer must submit the information described in §63.1515(b)(3) as part of the notification of compliance status report to document conformance with the operational standard in §63.1506(b).
[§63.1512(r)]

4.4.3 Capture/collection system. The owner or operator of a new or existing affected source or emission unit with an add-on control device must submit the information described in §63.1515(b)(2) as part of the notification of compliance status report to document conformance with the operational standard in §63.1506(c).
[§63.1512(s)]

4.4.4 Initial notifications. The owner or operator must submit initial notifications to the applicable permitting authority as described in paragraphs (a)(1) through (7) of this section.
[§63.1515(a)]

4.4.5 Startup, shutdown, and malfunction plan/reports. The owner or operator must develop and implement a written plan as described in §63.6(e)(3) that contains specific procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the standard. The owner or operator shall also keep records of each event as required by §63.10(b) and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in §63.6(e)(3). In addition to the information required in §63.6(e)(3), the plan must include:
[§63.1516(a)]

4.4.5.1 Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; and
[§63.1516(a)(1)]

4.4.5.2 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.
[§63.1516(a)(2)]

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature[1] _____ _____
(please use blue ink) Responsible Official or Authorized Representative Date

Name and Title _____ _____
(please print or type) Name Title

Telephone No. _____ Fax No. _____

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[1] This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(I) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), or

(ii) the delegation of authority to such representative is approved in advance by the Director;

b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of USEPA); or

d. The designated representative delegated with such authority and approved in advance by the Director.